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U. S. DEPARTMENT OF LABOR
JAMES J. DAVIS, Secretary
BUREAU OF LABOR STATISTICS
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MONTHLY LABOR REVIEW

Vol. 26, No. 6 June, 1928

SPECIAL FEATURES IN THIS ISSUE

"Old age" at fifty, page 1
Settlements for accidents to American seamen, page 6
Apprenticeship in building construction, page 15
Blast-furnace productivity in the United States, page 29
New test for industrial lead poisoning, page 49
Wages and hours in cotton compresses, 1927, page 109

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Health and recreation activities in industrial establishments, 1926 Bulletin No. 458.

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Apprenticeship in building construction. Bulletin No. 459.

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A new test for industrial lead poisoning. Bulletin No. 460.

Park recreation areas in American cities. Bulletin No. 462.

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Issue in Brief

The practice of setting an arbitrary age limit for employment is antisocial and unsound, according to an article by the Secretary of Labor. Some plants class a worker as old at 50 years of age, and in some the age limit is even lower than 50. In occupations requiring youthful strength there may have been some justification for this practice in former years. Now, with industry highly mechanized, skill and experience are more valuable in a worker than brute strength. On the whole, a machine operator is probably better at 60 than at 20 (p. 1).

A study by the Bureau of Labor Statistics of the amounts actually received by seamen in accident settlements, in comparison with the amounts which would be payable under the provisions of the longshoremen's act, covered 1,195 cases and showed the following results: In the 899 cases not involving litigation, the average actual settlement was $262.47, as compared with an average estimated settlement of $352.56 under the compensation act. In the 296 cases involving litigation, the average "gross" settlement was $1,317.03, and the estimated average "net" settlement $790.22, as compared with an average estimated settlement of $821.07 under the provisions of the compensation act. The usual legal fee was found to be 50 per cent (p. 6).

The training of skilled mechanics for the building industry by means of apprenticeship, applying a strict construction to that term, is a lost art, to judge from the findings of a recent investigation made by the Bureau of Labor Statistics. However, the development of joint apprentice committees composed of employers and workers, cooperating with local school boards under the Smith-Hughes Vocational Education Act, is resulting in a system of training which is proving satisfactory in some cities. The bureau study covers 19 representative cities, in which trainees to the number of 12,100 are actually indentured or are under some sort of contractual obligation to learn one of the building crafts. While the whole apprentice problem is a local one and is handled locally, certain of the building trades have national programs for training workers which are of fairly wide application. Trades which have definite national programs are, on the whole, making better progress locally than are those in which no organized effort is made to increase the supply of skilled workers (p. 15).

A survey of wages and hours of labor in cotton compresses by the Bureau of Labor Statistics shows that in 1927 the average hourly earnings for male employees were 31.6 cents, and the average actual earnings per week were $15.70. The average full-time hours per week for males were 56.2 and average hours actually worked in one week, 49.6. Very few females are employed in the industry. The great majority of the employees were colored (p. 109).

The diagnosis of lead poisoning has in the past depended upon the presence of definite symptoms, with the result that poisoning from lead and its compounds was generally well established before it was detected. A new test, which shows the effects of lead absorption at an early stage, has been proposed by Dr. Carey P. McCord. This test reveals the presence of immature red cells in the blood stream which, for persons exposed to the lead hazard, may be taken as an index of lead poisoning or lead absorption. The results of the clinical and laboratory studies with an account of the technique followed in making the blood counts are given in Bulletin No. 460 recently published by the Bureau of Labor Statistics (p. 49).

The output per man in blast furnaces in the United States increased from 25 tons in 1850 to 1,257 tons in 1925, the increase being almost continuous, except for the years immediately affected by war conditions. During this period of 75 years the number of employees in the industry increased only 44 per cent, while the output increased more than 7,000 per cent (p. 29).

Mechanical loading of bituminous coal in the mines of the United States is growing rapidly, according to a recent study by the United States Bureau of Mines summarized on page 33. It is estimated that the increase from 1925 to 1926 was approximately 60 per cent, and incomplete reports for 1927 indicate rapid progress in the installation of machines. Although only 1.8 per cent of the total production of bituminous coal in the United States in 1926 was mechanically loaded, in some States a considerable part of the output was loaded by machine. Of the 17 States for which figures are presented separately, Wyoming led with 17.6 per cent of the total output loaded by machine, followed by Indiana with 9.3 per cent and Virginia with 7.7 per cent, Kentucky showing the smallest amount—0.3 per cent.

An act extending workmen's compensation to employees within the District of Columbia has been passed by Congress. It extends the provisions of the longshoremen's and harbor workers' compensation act, which allows a maximum of 66⅔ per cent of the wages as benefits, to employees in the District, and places the administration of the act under the United States Employees' Compensation Commission. The act will become effective July 1, 1928 (p. 72).

A series of lectures on the work of the New York State Department of Labor by Commissioner James A. Hamilton and his associates will be given during the summer sessions of this year at Columbia University, New York University, College of the City of New York, University of Rochester, and Syracuse University. The purpose of these lectures is not only to describe the various activities of the labor department but to emphasize the fact that the department is intended to serve all classes of citizens in the State (p. 43).

A review of the development of voluntary and compulsory sickness-insurance schemes in various countries shows that compulsory systems are more generally found and are also more effective in safeguarding the workers than are the voluntary systems. A compulsory sickness-insurance system for wage earners is in force in 24 countries. Voluntary systems are found in 17 countries, although in only three of them is any considerable proportion of the workers insured in the funds (p. 77).

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"Old Age" at Fifty [1]

By JAMES J. DAVIS, SECRETARY OF LABOR OF THE UNITED STATES

NOT long ago I was asked to address the Veteran Employees' Association of the Westinghouse Co. in Pittsburgh. This is an organization composed of no fewer than 3,400 men and women who have served that enterprise for periods ranging from 20 to 40 years. So large a group of workers so long attached to a single place of employment is rare in a country as subject as ours to rapid movement and change. As I said in substance at the time, restless America is inclined to overlook the fact that sometimes the lesson of the tree is not to be despised. After all, the surest and most rapid rise may come of taking root in a single spot and growing upon its advantages.

The sight of so many workers who had followed this plan, and the policy of a company glad to encourage them in it, naturally brought to mind the type of employer who has the opposite inclination. It is true that many an American employer can testify to the worker whom he has trained and fitted into his organization, often at considerable cost of patience, materials, and time, only to find that worker ready to leave him for any, or no, apparent reason. This other side of our restless ambition has long given industry one of its problems. Now we hear more and more of another problem; that of the worker whose employer is willing to release him, whatever his skill and value, for no other cause than that he has reached an age beyond which it is thought he is, or will be, useless.

Often enough, in my own early days in the mill, I had seen this senseless practice, and often enough have seen it ever since. More than once, before the occasion in Pittsburgh, I had touched upon it. I knew it could be no novelty to many others. Sooner or later, it seemed to me, this habit of early discharge might become an issue in our industrial life. The time might arrive when it would have to be called to general attention. Already it had been referred to by several recent writers; with what effect I did not know. But the talk I gave to the Westinghouse veterans happened to be put on the air, and the response that has come

[1] Reprinted, with permission, from the North American Review, New York, May, 1928.

from those who heard it by radio, or read quotations in the press, has been astonishing. Evidently the topic is alive and burning. Employers as well as workers have written, some to express relief, and all approval, that the topic had been raised. This habit of arbitrary discharge at an arbitrary age has affected or aroused, it seems, more people than I had supposed could be concerned.

In my own early days at hand labor, and in industries such as the one in which I was employed—iron and steel—there may have been reason for discharge of the occasional man of 50. The handling of heavy masses of metal demanded bone and brawn, the heat of the furnace called for endurance, and the always ponderous and sometimes dangerous machines were admittedly safer in the hands of men who were younger and more alert. For some men of 50 these tasks and strains were too much. If only to prolong their usefulness in some other industry, it was wise and humane to release them from steel.

In the case of the hardier specimens it was simply absurd to lose their hard-earned, valuable knowledge and skill merely because they had lived a certain number of years. Often the very labor which had taught them so much in mind had only toughened them physically. None knew this so well as such men themselves, and they cheerfully, and invariably, lied about their years. Where men were afraid of the 50-year rule, there was never a man in the mill who would admit that he was more than 48. Many a good and stout worker, grown gray at the temples, was known to darken his hair with soot from the furnace. And many a man have I seen work on for years beyond the limit, without detection. If only to conceal his years he always strove to rival or outdo the younger men about him, and he often succeeded—to his own immense satisfaction, and to the amusement of others who were in the secret. Our very bosses, themselves risen from the ranks, knowing the worth of their men, and eager to keep them, gladly helped them along in this innocent deception of their employers.

If in other industries, where the toil was lighter, this practice of arbitrary discharge was frequent, we heard little of it then. In these industries, also, there might have been then some excuse for the habit. In those times the man of 50 was more apt to be 50 indeed. Not only did others regard him as old; he thought so himself. Every man who could afford it, the employer himself, looked forward to 50, or thereabouts, as the age when he planned to "retire." The worker was expected to do the same, although the fact that he could hardly so well afford it was not altogether ignored. A sort of anæsthetic ceremony would be thrown about his passing. A gold watch would be given him, a set of resolutions, and even a purse of money. Regrets were spoken, and by at least one person they were apt to be sincerely felt. The man who felt them was he who, along with the watch, had received his discharge.

Now, it appears, this arbitrary discharge of the worker, regardless of his fitness, at an age arbitrarily fixed, is becoming a general policy. The policy is spreading through the executive offices of business, as it spreads through factory and shop. The tendency is to fix the age of retirement at a limit ever progressively lower. By some employers it is placed as low as 40 years. It begins to be seri-

ous and alarming. And observance of the practice reaches its peak in the very day when the reasons for it have virtually disappeared. Not only have the reasons for arbitrary discharge for age disappeared, but their place has been taken by every gravest reason why employment should be made continuous and safe for the maximum number of workers, regardless of age.

Let me first go over the case against automatic discharge. The hastiest glance at the facts will disclose how needless it is. In the last 30 years, which is shorter than the period of my own working life, science has greatly extended the span of human existence. It has given to every individual the chance not only of a longer life but of one more vigorous and free from disabling disease. To the benefits of a better personal hygiene we have added a better philosophy of life. More active in body, we are also more active in mind, and the world we now live in obligingly supplies us with endless pursuits and interests to keep us physically and mentally young. Our whole attitude toward life has changed to keep us youthful in spirit. No one to-day feels old, or is old, at any age.

Indeed it is just this youthful spirit of the times that partly accounts, I believe, for the current prejudice against the man of 50. In our zeal to keep business and industry as youthful and vigorous as the spirit of the age, we have come to shy at the very suspicion of years. The younger industrial or business executive of to-day will smile if you remind him that Henry Dandolo, a Venetian, accounted the greatest sailor of his time, stormed Constantinople, an almost impossible feat, at the age of 95. You may point him to Gladstone, in his eighties a dominant figure in the world's affairs. The list of achievements by men advanced in life extends to a day as late as the recent war. The younger man of of our time will answer that these belonged to another day; that the rigors of this one belong in the hands of those who alone can endure them. Cite the great and important work still being done by men in their eighties, or even beyond them, in the field of finance, in education, invention, the law, even in the Supreme Court of the United States. You will be told that these are exceptional men.

Well, exceptional also is the worker of to-day who, at 50 or 40, is useless. The truth is that, exceptional instances apart, the employer who fires a worker at such an age for being mentally or bodily "old" is contradicted by every mental and moral trend of the times.

The facts against him are even stronger. The science, invention, and general progress that have given us new and more stimulating interests to quicken our lives and spirits have also lightened our physical tasks. Far from growing greater, the physical stresses and burdens of life are growing less, and our productive period is growing longer. Within 30 years we have written a wholly new page in history, with our lavish use of mechanical power, in the development of automatic and labor-saving machinery. One by one we have taken the age-old perils from the hands of men, the age-old burdens from their backs, and many of the petty strains from their minds. At the same time that we have lightened men's labor and lengthened their period of production we have vastly increased their productive capacity, with the consequence that they are correspondingly more valuable to society and to themselves.

The progress made in steel alone, the industry I learned as a youth, staggers me now as a man. Not long ago I was shown through a modern steel-making plant, the final word of its kind. During my day in the mills a neighbor of mine was one of those caught when a ladle filled with white-hot metal spilled its contents over a group of men about it. There followed one of the strangest of burials. A huge hole was dug in the ground to receive that hideous octopus of metal, and a clergyman spoke his parting words to the ashes of half a dozen men invisibly caught within its folds. In my time it was no uncommon thing for living men, as well as red-hot iron, to be drawn through the rolls. To this day my own arms and legs bear the scars of the burns that I received. Now, thank God, these things are rare. In the plant that I inspected great cranes, rolls, conveyers, and many other mechanical marvels for the making and handling of steel do almost humanly skillful things, lift more than humanly possible weights, and all at the touch of a lever, an electric button. They gave me the vision of a day when the bulk of men's work may well be done at the touch of a button. Danger, discomfort, back-breaking, heartbreaking labor, all are going in steel. Machinery does it, does more of it, and does it in the main with greater precision.

What is true of steel has happened in nearly every other industry. One after the other, automatic machinery has invaded them; even those, like the blowing of glass, where human skill had been thought, for ages, irreplaceable.

In fact, I believe this zeal for machinery of ever new and more productive power, this quest of mass production in ever greater mass and at ever greater speed, is another cause for the growing prejudice against the older worker. The typical American manufacturer is proud of his courage in scrapping expensive equipment to-day, if to-morrow hands him machines of still more speed and productive power; and from pride in his courage to scrap his machines he has passed to a mistaken pride in his courage in scrapping men. He shuts his eyes to a rather important difference between a machine and a man. All machines wear out, and so do some men and women; the rest grow better, in skill and experience. They make this gain, moreover, at a time when bodily strength, and skill itself, are less required. Indeed, alarming as is this growing prejudice against the older worker, I grow to be more concerned for all workers for another reason. Automatic machinery tends to place before the average employer a wholly new temptation. With machinery performing ever more work, and exacting ever less from the human hand, my fear is that wages may be slashed accordingly. This, however, is the subject of another discussion. Here is the point immediately pertinent to this one.

With the infinite number of our industrial operations coming to be done by machinery ever more automatic and easier for human hands to run, the reasons for firing the older workers fade to almost nothing. Where machines do so much and the worker so little, the worker of 60 becomes as able as the one of 20, with the added value of a tendency to stick to the job. In comment on my speech to the Westinghouse veterans, "F. P. A." remarked, in his column in the World, that faithfulness in a worker of 60 might have its explanation; he stuck to his job for having nowhere else to go. Whatever

the reason, the older worker sticks. One by one, it seems to me, the economic props can be knocked from under this practice of scrapping workers at any such age as 40 or 50. And minus the props, the practice stands forth for what it is, hardly more than a habit of thought, a fashion.

On the other hand, facts of the gravest importance are behind the case for safe and continuous employment, especially of those whom it now is the fashion to discharge. The case can be argued without the strongest plea of all, the plea of humanitarianism. Nothing but simple business principle is needed to give overwhelming force to the argument for undisturbed employment. And the facts and the principle can be stated briefly enough.

As this is written the country has on its hands an unemployment problem that disquiets those who know its proportions, and baffles those who seek its source. With the pace of our business life only a little slackened from what it was a year ago, we nevertheless have unemployment, and I should rather draw any other conclusion than the one which this contrast forces upon me. No one can be certain, but I fear that a considerable number of the people at present out of work represent a part of the labor "saved" by some of this modern labor-saving machinery. I referred above to the glass industry as recently having come under machine production at last. In that industry 700 men were formerly employed in blowing the number of five-gallon glass carboys needed to supply the nation's demand. Now all the carboys the country can use are supplied by a single machine which requires the attention of a handful of men. This may be an extreme instance of what occurs when machines step into the work of men, but it serves to indicate a process that is going on in industry as a whole.

Are labor-saving mechanisms displacing workers more rapidly than we can absorb them in other pursuits? A year ago the danger in this high-speed production on which our prosperity rests was that it might turn and create, also, a certain amount of poverty, in a class of the permanently unemployed. To-day I fear we find that danger a little nearer at hand, and a remedy only advisable a year ago may soon become imperative. One remedy is, of course, the development of new popular demands, and the creation of new industries to meet them. This, too, is the subject of another discussion, but again it supplies an immediate point to this one.

The point is simple. During the best of times we always have a certain amount of unemployment. Naturally, it is aggravated in periods of depression. At the present time we have the phenomenon of comparatively good times, and disquieting unemployment, in combination. If, now, to an unemployment situation brought about by economic forces beyond control, the American employer, through whim alone, is to add a further unemployment by senseless discharge of his older workers, we shortly must have on our hands a state of affairs that may cost us much and give us the gravest concern.

The truth is, it is impossible to exaggerate the business risk in widespread unemployment. Discharge of a single worker is not the simple matter it appears to be. To the man discharged it may mean to be deprived of his means of subsistence. That is serious enough, but we forget what it costs the rest of us. Not a man can

lose his job but we all lose something. The man discharged ceases to produce, and he also ceases to consume. He adds nothing to the wealth of us all, he takes from the business of all when he ceases to be a buyer. The loss of a single producer and buyer might never be noticed. Multiply by several millions, and the effect will be felt by the whole of business.

The same thing happens on any serious and widespread reduction in wages. Those who complain at the scale of wages, or who discharge their workers without a thought, forget that our prosperity derives from this home market of ours, and that in that market the millions of wage earners are by far the richest and freest buyers. Good wages for the worker are thus good business for us all, whereas we all suffer if any considerable number of workers suffer the loss of their jobs. It is hardly a paradox to say that the employer who fires his men for age is taxing himself for his youth, and in terms of hard financial losses.

There is the simple business principle, and these are the facts that need to be pondered by all employers who object to age in their workers, in a day when physical strength no longer counts.

I believe the humane employer needs only to think of these things to abandon the practice. I have said this practice of discharging workers for age is not a novelty; this popular resentment toward it is. I believe that if ever this public resentment reaches any volume, and acquires a voice, the custom is doomed to the extinction that it deserves. In the face of a public sufficiently aroused against it, the enlightened employer will abandon the practice of his own accord. The other kind will be driven from it.

Settlements for Accidents to American Seamen

MARITIME law has long provided that a seaman[1] who is injured on duty or who becomes ill while on duty shall be entitled to maintenance and cure and to wages to the end of the voyage. Aside from these legal provisions, whatever compensation for accident he may receive is obtained through agreement with his employer or through court action.

When the longshoremen's and harbor workers' compensation bill was introduced in Congress in 1926 it included seamen as well as the designated maritime workers, but before passage the provision relating to seamen was eliminated. The contention was made during the hearings on the bill that the rights of seamen were adequately protected under maritime law, which secured not only a continuation of wages and maintenance and "cure" in the sense of necessary treatment and reasonable care but also the right to prosecute for indemnity if the ship is liable for the accident through unseaworthiness or negligence.

[1] Section 4612 of the Revised Statutes defines master, seaman, vessel, and owner as follows: "In the construction of this title, every person having command of any vessel belonging to any citizen of the United States shall be deemed the 'master' thereof; and every person (apprentices excepted) who shall be employed to serve in any capacity on board the same shall be deemed and taken to be a 'seaman'; and the term 'vessel' shall be understood to comprehend every description of vessel navigating on any sea or channel, lake or river, to which the provisions of this title may be applicable, and the term 'owner' shall be taken and understood to comprehend all the several persons, if more than one, to whom the vessel shall belong."

That contention raised the question of how injured seamen actually fare under existing law. Discussions and hearings following the introduction of compensation legislation for maritime workers developed the fact that there was a remarkable absence of information regarding accidents to workers of that class. This condition was also brought out in a speech before the marine section of the National Safety Council at Chicago in September, 1927, by Capt. Irving L. Evans, urging shipowners to keep complete records, during which he said:

> The marine industry is seriously handicapped in that there is no central source of information, reliable or otherwise, showing even approximately the number of deaths and permanent personal injuries, to say nothing of accidents of a less serious nature occurring aboard ship. * * *
>
> The shipowner has complete information or "statistics," as to the methods and sources of obtaining cargo and passengers to carry and thereby earn revenue. If they are to compete successfully with foreign-flag vessels they must look not only to increasing the tonnage to be carried in American bottoms but also to the reduction of overhead and operating expenses. This can be done, to some extent at least, by wise and intelligent handling of the information constantly passing through the office of every shipowner. It is in the form of reports of accidents, damage, and loss, also the payment of many claims.
>
> Complete information covering accidents and claims will not only enable the shipowners to reduce the number of accidents and claims, and thereby save through a reduction in the total amount paid for claims, insurance premiums, or assessments under compensation laws, but will place them in a position to deal successfully and intelligently with proposed legislation, whether favorable or adverse.

In view of the lack of data the Bureau of Labor Statistics undertook a study to determine the actual status of seamen with regard to injuries and recovery therefor. Its study covered three points: (1) The physical injury, (2) the compensation received therefor through personal settlement or court action, and (3) an estimate of the compensation which would have been payable if the injured seamen had been covered by compensation legislation similar to that enacted by Congress in 1927 for longshoremen and harbor workers. Accident rates and insurance rates were not included in the study.[2]

Data were completed for 1,195 cases, of which 899 were direct settlements and 296 involved legal representatives for the seamen and the consequent payment of legal fees.

It was found that the average settlement in the 899 cases not involving legal fees was $262.47 per case as compared with the average estimated settlementof $352.56 under the adaptation of the provisions of the longshoremen's and harbor workers' compensation act employed in this study.

In the 296 cases involving legal fees the amount of the settlement included the amount paid by the seaman as legal fees. Such information as could be obtained indicated that the cases were taken by the attorney on a contingent fee. This was stipulated as one-half or more than one-half of the amount recovered in 87 per cent of the 62 cases in which the fee was learned. The average of the gross amounts paid by the insurance or shipping company in the 296 cases was $1,317.03 per case. Assuming that the legal fees in these cases were as low as 40 per cent of the settlement, the average net amount received by the seaman would have been $790.22 as com-

[2] The report in full will be published later in bulletin form.

pared with the average estimated settlement of $821.07 under the assumed conditions of this study.

Scope of Study

THE bureau's study covered all claims settled in the 1926 business year by the more important shipping companies and marine underwriters in the New York City area, for which the bureau was able to obtain sufficient information concerning disability and settlement to make a comparison with the provisions of the longshoremen's compensation act. The 1,195 cases shown are representative of settlements consummated in one year for injury to all classes of American seamen (except those on the Great Lakes), even though some of the injuries occurred one, two, or even five years prior to settlement.

The initial information obtained from the company records of claims closed was supplemented by data gathered from other sources. No data were collected as to the number of ships operating, the number of seamen employed, or the number of accidents occurring to seamen. Further, the bureau made no attempt to determine how often injuries result in a claim, or how many injuries there were for which no claim was made but which were deserving of recompense. There were a considerable number of injuries for which seamen would have been recompensed had claims been filed. This indicates a lack of knowledge on the part of seamen as to their rights when injured, or a feeling of the futility of trying to prosecute a claim because of inexperience in these matters.

Hypothetic Application of Compensation Law

AN ESTIMATE was also made of the total amount which would probably have been recovered had the same accident cases been adjudicated according to the provisions of a compensation law such as the longshoremen's and harbor workers' compensation act, retaining, however, the seaman's present right to maintenance and cure, and wages to the end of the voyage.

The longshoremen's act was made the basis of comparison because the original bill (S. 3170) included seamen and hence is suppositionally the kind of instrument which would cover seamen if they were made subject to such legislation; and, moreover, because longshoremen and seamen often work side by side, and in some cases longshoremen and seamen are injured in the same accident.

In estimating the probable amount payable to seamen under a compensation law, the compensation allowed longshoremen for comparable disabilities was applied, as nearly as practicable, to each of the 1,195 cases of injured seamen.

Comparative Summary

TABLE 1 shows averages for all cases studied (including 29 cases in which the injury was not followed by an incapacitating disability) as well as for those cases in which the injury was followed by disability as defined by the longshoremen's compensation act, viz, "incapacity because of injury to earn the wages which the employee was re-

ceiving at the time of the injury in the same or any other employment." Another subdivision is made of the latter class for those cases in which the disability continued beyond the duration of the seaman's contract (articles).

The cases in each division are classified according to whether or not their settlement involved the payment of legal fees.

Of the 29 cases included in the first division which were followed by no technical disability, the injuries in 14 were not severe enough for the seaman to leave his duties except for first-aid treatment; 8 caused the seaman to be relieved from duty for a short time as, for example, the remainder of the watch; and 7 of the injuries were more severe, but because of the nature of their duties the seamen were able to stand regular watch. In one instance a radio operator sprained his knee, while in another a second engineer was bruised and scalded about the head and face. None of these cases would have received any consideration under a compensation law because there was no incapacity to earn wages.

TABLE 1.—AVERAGE AMOUNTS PAID TO INJURED SEAMEN AND ESTIMATED AMOUNTS PAYABLE UNDER ADAPTATION OF LONGSHOREMEN'S ACT, AND AVERAGE DAYS OF TOTAL DISABILITY, BY METHOD OF SETTLEMENT

Method of settling cases	All cases studied [1]				Cases involving disability					
								Beyond duration of seaman's articles		
	Total	Average amount actually paid	Probable recovery under compensation act	Average days of total disability	Total	Average amount actually paid	Probable recovery under compensation act	Total	Average amount actually paid	Probable recovery under compensation act
Cases involving no legal fees										
Settled by personal agreement	874	$269.81	$351.29	49.4	856	$272.99	$358.67	712	$305.27	$410.13
No claim filed	25	6.02	396.94	41.8	25	6.02	396.94	21	6.85	461.96
Total and average	899	262.47	352.56	49.1	881	265.41	359.76	733	296.72	411.62
Cases involving legal fees										
Settled by agreement by attorney	80	[2] $507.40	$497.90	86.5	78	[2] $518.49	$510.66	70	[2] $565.51	$564.62
Action compromised	182	[2] 1,169.29	844.01	86.0	173	[2] 1,222.90	887.92	148	[2] 1,390.05	1,027.48
Settled by jury or judge	34	[2] 4,012.89	1,458.69	144.9	34	[2] 4,012.89	1,458.69	28	[2] 4,745.09	1,753.56
Total and average	296	[2] 1,317.03	821.07	92.9	285	[2] 1,362.95	852.76	246	[2] 1,537.30	978.41
Grand total and average	1,195	[3] 523.69	468.61	60.0	1,166	[3] 533.68	480.26	979	[3] 608.45	554.04

[1] Including 29 in which a settlement was made for injury which caused no disability.
[2] Gross amount; includes seaman's net recovery and all fees charged by his attorney. See Tables 2 and 3, page 13 for details of fees charged in some cases.
[3] Includes "gross amounts" of settlements in 296 cases involving legal fees.

Cases involving no legal fees.—In the cases involving no legal fees the amounts shown as actually paid are the net amounts received by the seamen. The 874 cases settled by personal agreement include

all cases settled by agreement between the seamen and a claim adjuster for the shipping company or the underwriter, a comparatively small number referred by mutual agreement to the United States Compensation Commission for adjudication, and a few cases in which the seaman retained an attorney but later personally made a settlement with the claim adjuster without the knowledge of the attorney. The actual average net settlement in these 874 cases was $269.81. Under the adaptation of the longshoremen's law as made in this study the average estimated settlement would have been $351.29, or $81.48 more than the seamen actually received.

The 25 cases in which no claim was filed are those in which the seamen were disabled and would have been entitled to compensation under the adaptation of the longshoremen's law, or to wages and maintenance under their maritime rights had they presented claims. The wages paid to the seaman when put ashore constituted the only settlement in any of these cases. In three cases there were no wages due, as the accident occurred just at the end of the voyage. In one other case no part of the wages due under this right was paid because the seaman was put ashore when his incapacity began and was never heard from in regard to a settlement. In 10 cases the seaman remained aboard and was paid wages up to the time of expiration of his articles. The other 11 seamen were put ashore before the end of the voyage and were paid at that time. They did not receive the additional wages to which they were entitled, in most cases probably because they took no steps to recover such wages. The average actual net payment to the seamen in these cases after being injured was $6.02, while the probable recovery under the compensation act would have averaged $396.94.

It is noted that the period of total disability in the cases settled by personal agreement averaged 49.4 days, while in the cases for which no claim was filed total disability lasted 41.8 days. The average probable recovery under the compensation act for these two groups of cases would have been $351.29 and $396.94, respectively. The latter average is considerably higher than the former because the latter group includes one case of arm dismemberment and two cases of finger amputation in which the computed compensation is based on the permanent partial disability schedule in the longshoremen's law, which provides a much longer period of payment than the actual total days of disability. After having received hospital treatment, the seaman whose arm was dismembered was deported and no action was taken to recover for the injury. Three per cent of all cases settled by personal agreement involved amputation and dismemberment, while 12 per cent of the cases in which no claim was filed were injuries of this type.

The average net settlement per case for both groups combined was $262.47, while the probable recovery under a law similar to the longshoremen's act would have been $352.56, or $90.09 more per case.

Cases involving legal fees.—In these cases the bureau secured data regarding the amount of the settlement as paid by the shipowner or the underwriter, but except for a comparatively few cases the amount which the seaman actually received could not be ascertained. All of the amounts shown as settlements in these cases include the

amounts later paid by the seaman in legal fees, but do not include court costs.

Information as to the amounts of such fees was extremely difficult to obtain. The amount of the legal fee has been verified in 22 cases. In 12 of these the fee formed 50 per cent of the amount recovered, in 3, 40 per cent, and in the other 7 cases 60, 53, 43, 39, 29, 27, and 25 per cent, respectively. The simple average of attorney charges in the 22 cases is a little over 45 per cent.

The average actual "gross" settlement per case in the cases involving legal fees was $1,317.03, as compared with a probable "net" settlement of $821.07 under the longshoremen's act. Estimating the average fees charged by the attorney in such cases at 40 per cent of the amount of the settlement, the "net" amount received by the seaman would have averaged $790.22 per case, or $30.85 less than he would have received under the adaptation of the longshoremen's act. If the lawyer's fees had averaged as much as 50 per cent of the amount of the settlement, the average net amount received by the seaman would have been $658.52, or $162.55 less per case than the estimate under the compensation law.

In the 80 cases settled by agreement between a claim adjuster and an attorney acting for the seaman the average gross amount actually paid per case was $507.40, while the estimated recovery under the longshoremen's act would be $497.90, or 98.1 per cent of the former amount.

In the 182 cases settled by compromise between the attorneys of the two parties after legal action to recover damages for injury had been commenced, the settlements shown include the legal fees. The settlements in these cases averaged $1,169.29, while the probable settlement under the act would have been $844.01, or 72.2 per cent of the actual settlement.

The majority of the 34 cases prosecuted to judgment were tried before a jury, but in a few instances the trial by jury was waived and the settlement was the result of the court's judgment. The average actual gross settlement in these 34 cases was $4,012.89, while the probable settlement under adaptation of the act would have been $1,458.69. In 1 of these cases the verdict was for $34,000; in 8 cases the verdicts ranged from $7,500 to $14,700; in 1 case the verdict was for $5,000; and in 15 the verdict ranged from $130 to $2,500. In 9 cases the court's decision was adverse to the seaman, although in each case there was actual disability arising "out of and in course of the employment," and settlement with the seaman to the extent of wages and maintenance would have been made had he chosen to keep his case out of court. In 4 of the 9 cases the seaman began legal action because he thought the ship could be proved liable, but in each case he failed to prove liability and the case was dismissed. In 3 cases action was started, but when the case came to trial the plaintiff failed to appear and the case was dismissed. In 1 the seaman sued the wrong party, and in the ninth case the statute of limitations barred the seaman from proceeding with his case. The high verdicts first mentioned were what might be termed "sympathy verdicts."

The reason for the differences in the ratios between the estimated settlement and the average length of the disability shown for the three groups of cases in which legal fees were involved is the difference

in the nature of the cases included in the different groups. The ratios are, respectively, an estimated settlement of $497.40, based on 86.5 days' average disability; $844.01, based on 86 days' average disability; and $1,458.69, based on 144.9 days' average disability. One per cent of the cases closed by settlement with the attorney, 6 per cent of the cases settled by compromise, and 12 per cent of the cases settled by jury or judge were dismemberments or amputations. For such permanent partial disabilities the longshoremen's law provides a schedule specifying the number of weeks' compensation to be paid and this schedule raises the basic period for which compensation was computed far above the actual period of disability.

All cases studied.—The average settlement for all cases studied was $523.69. Assuming that legal fees in the 296 cases in which an attorney was engaged averaged as low as 40 per cent of the settlement in each case, and basing a grand average for all cases on this assumption, the actual net recovery by the seaman in each case would have averaged $393.19. This average is $75.42, or 16.1 per cent less than the amount ($468.61) which would probably have been recovered under the longshoremen's act, as adapted. If the legal fee in the 296 cases had averaged as much as 50 per cent the seamen would have recovered an average of $360.57, which is $108.04, or 23.1 per cent, less than the probable recovery under the longshoremen's act.

Legal Fees

INFORMATION as to legal fees charged in a number of cases in the study was obtained from legal documents, depositions, reports, attorneys, and also directly from the seamen themselves, through the cooperation of the Seaman's Church Institute, New York City. Such information indicates that the legal fees charged are almost without exception contingent upon recovery and in most cases are specified as 50 per cent of the settlement, although an occasional case may specify as low as 25 per cent. A very few minor cases are handled by representatives of charitable organizations for a small fee, usually not exceeding 10 per cent.

Table 2 shows detailed figures for 22 cases in which the amounts of the fees collected were verified. In reference to case No. 182 for which data are shown in the table, it is necessary to point out that the contract of retainer specified that the fee would be 50 per cent of the settlement. The suit was brought through a representative of the seaman's widow, the widow at the time being a nonresident alien. The attorney in the case, after collecting 50 per cent of the settlement, also collected the sum of $594.94 to cover "expenses" said to have been incurred in the prosecution of the case. The fees shown in the table do not cover any of the legitimate fees, court cost, or other expense items usually incurred in the trial of such cases, and all such charges have been eliminated from any of the figures shown as settlements in this study.

TABLE 2.—NET AMOUNT RECEIVED BY SEAMAN OR BENEFICIARY IN 22 CASES

Method of settlement	Amount of settlement	Net recovery by beneficiary	Fee	
			Amount	Per cent of total recovery
Agreement by attorney:				
Case No. 45	$183.00	$133.00	$50.00	27
Case No. 53	125.00	62.50	62.50	50
Case No. 56	100.00	75.00	25.00	25
Case No. 70	250.00	150.00	100.00	40
Action compromised:				
Case No. 9	150.00	75.00	75.00	50
Case No. 13	100.00	50.00	50.00	50
Case No. 27	100.00	50.00	50.00	50
Case No. 76	75.00	37.50	37.50	50
Case No. 77	1,000.00	500.00	500.00	50
Case No. 81	1,175.00	715.00	460.00	39
Case No. 87	300.00	180.00	120.00	40
Case No. 89	2,750.00	1,375.00	1,375.00	50
Case No. 90	175.00	125.00	50.00	29
Case No. 117	100.00	57.00	43.00	43
Case No. 166	2,500.00	1,250.00	1,250.00	50
Case No. 179	150.00	75.00	75.00	50
Case No. 182	5,000.00	[1] 1,905.06	2,500.00	50
Case No. 10	75.00	30.00	45.00	60
Case No. 28	1,000.00	500.00	500.00	50
Case No. 106	3,000.00	1,795.00	1,205.00	40
Case No. 132	150.00	70.00	80.00	53
Case settled by jury or judge:				
Case No. 29	8,000.00	4,000.00	4,000.00	50

[1] $594.94 was collected by the attorney to cover "expenses" said to have been incurred in prosecuting the case.

Table 3 below shows for 40 cases the amount of the fee specified in the contract of retainer in each case, but the net recovery by the seamen could not be obtained. Some of the cases may be similar to case No. 182 shown above.

TABLE 3.—AMOUNT OF FEE SPECIFIED BY CONTRACT OF RETAINER IN 40 CASES

Method of settlement	Amount		Method of settlement	Amount	
	Settlement	Fee		Settlement	Fee
Agreement by attorney:			Action compromised—Con.		
Case No. 4	$400.00	$200.00	Case No. 75	$150.00	$75.00
Case No. 6	225.00	112.50	Case No. 91	25.00	12.50
Case No. 8	2,000.00	1,000.00	Case No. 97	3,000.00	1,500.00
Case No. 11	3,500.00	1,750.00	Case No. 105	750.00	375.00
Case No. 15	125.00	62.50	Case No. 107	500.00	250.00
Case No. 20	30.00	15.00	Case No. 111	500.00	250.00
Action compromised:			Case No. 123	325.00	162.50
Case No. 3	5,000.00	2,500.00	Case No. 124	1,650.00	825.00
Case No. 25	500.00	250.00	Case No. 125	250.00	125.00
Case No. 28	1,000.00	500.00	Case No. 129	50.00	25.00
Case No. 35	100.00	50.00	Case No. 131	200.00	100.00
Case No. 53	5,000.00	2,500.00	Case No. 143	46.00	23.00
Case No. 54	100.00	50.00	Case No. 161	50.00	25.00
Case No. 56	100.00	50.00	Case No. 164	600.00	300.00
Case No. 58	75.00	37.50	Case No. 165	50.00	25.00
Case No. 63	250.00	125.00	Case No. 166	2,500.00	1,250.00
Case No. 65	100.00	50.00	Case No. 167	50.00	25.00
Case No. 66	450.00	225.00	Case No. 169	300.00	150.00
Case No. 67	7,500.00	3,750.00	Case No. 176	40.00	20.00
Case No. 69	225.00	112.50	Case No. 181	750.00	375.00
Case No. 71	4,000.90	2,000.00			

One form of retainer contract used by attorneys in procuring injured seamen as clients specifies that the fee shall be "Fifty (50) per cent of any sum recovered by way of settlement, verdict, or otherwise." Another form peculiarly reads: "I (the seaman) am to receive ——— of any verdict or settlement and that the said (attorney or attorneys) are to receive the *other half* thereof, together with taxable costs." A third form often used is somewhat more flexible and provides "Said attorney to receive a reasonable percentage of the net recovery, his fee to be contingent upon recovery."

Table 4 shows the average period of total disability, of treatment, and of convalescence; the period for which the seamen were entitled to wages, the amounts of wages and maintenance to which entitled and the amounts actually paid, as well as the estimated recovery under the adaptation of the longshoremen's act. The table also shows the number of cases in which the separate items were involved. For example, of the cases settled by personal agreement, the days of treatment on ship, in the 555 cases in which such treatment was given, averaged 9.9 days per case. Based on the whole number of cases (874) settled by personal agreement, this average was 6.3 days.

TABLE 4.—ACCIDENTS TO SEAMEN OF UNITED STATES MERCHANT MARINE, SUMMARIZED BY METHOD OF SETTLEMENT

Item	Cases involving no legal fees			Cases involving legal fees				Both types of cases
	Personal agreement	No claim filed[1]	Total	Agreement by attorney	Compromised	Jury or judge	Total	
All cases	874	25	899	80	182	34	296	1,195
Total disability:								
Cases involving	843	25	868	77	162	32	271	1,139
Average days per case having	51.2	41.8	50.9	89.8	96.6	153.9	101.5	62.9
Average days, all cases	49.4	41.8	49.1	86.5	86.0	144.9	92.9	60.0
Treatment:								
Cases receiving—								
On ship	555	13	568	54	103	21	178	746
As inpatient	452	21	473	50	107	25	182	655
As outpatient	463	7	470	40	69	11	120	590
Average days per case receiving—								
On ship	9.9	5.4	9.8	9.4	13.7	15.5	12.6	10.5
As inpatient	32.7	35.8	32.9	57.3	82.0	136.7	82.7	46.7
As outpatient	23.4	8.6	23.2	32.8	35.1	14.9	32.5	25.1
Average days, all cases—								
On ship	6.3	2.8	6.2	6.4	7.8	9.6	7.6	6.5
As inpatient	16.9	30.1	17.3	35.8	48.2	100.5	50.9	25.6
As outpatient	12.4	2.4	12.1	16.4	13.3	4.8	13.2	12.4
Convalescence:								
Cases involving	429	7	436	41	74	10	125	561
Average days per case having	27.9	23.4	27.9	54.0	67.4	101.8	65.8	36.3
Average days, all cases	13.7	6.6	13.5	27.7	27.4	29.9	27.8	17.1
Wages:								
Period to which entitled—								
Cases involved	787	22	809	68	149	30	247	1,056
Average days per case involved	16.0	16.8	16.0	13.8	20.9	23.1	19.2	16.8
Average days, all cases	14.4	14.8	14.4	11.7	17.1	20.4	16.0	14.8
Amount payable—								
Cases involved	787	22	809	68	149	30	247	1,056
Average per case involved	$44.29	$45.42	$44.32	$30.91	$45.76	$55.60	$42.87	$43.98
Average, all cases	$39.88	$39.97	$39.88	$26.27	$37.47	$49.06	$35.77	$38.66
Maintenance:								
Period to which entitled—								
Cases involved	739	11	750	63	114	18	195	945
Average days per case involved	30.1	20.4	30.0	56.0	64.6	65.7	61.9	36.6
Average days, all cases	25.5	9.0	25.0	44.1	40.5	34.8	40.8	28.9

[1] Cases in which injured seamen were paid wages when put ashore and made no further claim, but who would have been entitled to compensation under the adaptation of the longshoremen's act.

TABLE 4.—ACCIDENTS TO SEAMEN OF UNITED STATES MERCHANT MARINE, SUMMARIZED BY METHOD OF SETTLEMENT—Continued

Item	Cases involving no legal fees			Cases involving legal fees				Both types of cases
	Personal agreement	No claim filed	Total	Agreement by attorney	Compromised	Jury or judge	Total	
Maintenance—Continued.								
Amount payable—								
Cases involved	739	11	750	63	114	18	195	945
Average per case involved	$70.71	$47.41	$70.36	$119.15	$139.55	$136.06	$132.64	$83.21
Average, all cases	$59.78	$20.86	$58.70	$93.83	$87.41	$72.03	$87.38	$65.80
Period from injury to settlement:								
Cases involved	866	11	877	80	177	31	288	1,165
Average days per case involved	86.4	12.2	85.5	236.1	652.1	801.5	552.7	201.0
Average days, all cases	85.6	5.4	83.4	236.1	634.2	730.7	537.7	195.9
Amount actually paid as—								
Wages—								
Cases involved	781	21	802	67	144	30	241	1,043
Average per case involved	$29.85	$7.17	$29.26	$23.22	$24.08	$36.39	$25.37	$28.34
Average, all cases	$26.65	$6.02	$26.08	$19.45	$19.05	$32.11	$20.66	$24.74
Maintenance—								
Cases involved	620	.....	620	14	21	1	36	656
Average per case involved	$51.24	.....	$51.24	$151.61	$160.00	$20.00	$152.85	$56.81
Average, all cases	$36.37	.....	$35.36	$26.53	$18.46	$0.59	$18.59	$31.20
Other settlement—								
Cases involved	749	.....	749	75	177	25	277	1,026
Average per case involved	$241.30	.....	$241.30	$492.18	$1,163.75	$5,413.05	$1,365.43	$544.79
Average, all cases	$206.79	.....	$201.04	$461.42	$1,131.78	$3,980.19	$1,277.78	$467.74
Total—								
Cases involved	872	21	893	80	182	31	293	1,186
Average per case involved	$270.43	$7.17	$264.24	$507.40	$1,169.29	$4,401.23	$1,330.52	$527.66
Average, all cases	$269.81	$6.02	$262.47	$507.40	$1,169.29	$4,012.89	$1,317.03	$523.69
Probable recovery under compensation act:								
Cases involved	856	25	881	78	173	34	285	1,166
Average per case involved	$358.67	$396.94	$359.76	$510.66	$887.92	$1,458.69	$852.76	$480.26
Average, all cases—								
Amount	$351.29	$396.94	$352.56	$497.90	$844.01	$1,458.69	$821.07	$468.61
Compared with actual recovery (4th fig. line above)	[2] $81.48	[2] $390.92	[2] $90.09	[3] $9.50	[3] $325.28	[3] $2,552.19	[3] $495.72	[3] $55.08
Period used in computation of compensation:								
Cases involved	699	21	720	68	137	25	230	950
Average days per case involved	70.7	152.0	73.1	140.5	201.6	472.3	213.0	106.9
Average days, all cases	56.5	127.7	58.5	119.4	151.8	347.3	165.5	85.0

[2] Greater. [3] Less.

Apprenticeship in Building Construction

THE Bureau of Labor Statistics has made an investigation in 19 cities to determine to what extent apprenticeship is a factor in the building industry, and what effect the growing agitation for a revival of the apprentice system is having. The full results of the study have just been published in bulletin form (No. 459).

The bureau limited its study to actual apprenticeship, that is, actual contract, or some equivalent obligation extending over a stipulated period of years, by which a boy is to learn and his employer is to teach one of the building crafts.

The accompanying table shows the crafts and the cities covered in the investigation, and the number of apprentices formally indentured, registered with the unions, or bound in some manner, for each city and each craft. Charleston, S. C., in which actual apprenticeship does not exist, is not included in the table. The letter E signifies that evening-school work is provided and, theoretically at least, required. The letters PT mean that part-time school training is an integral part of the apprenticeship. The expression "part time" in all cases signifies compulsory day-school work on paid-for time.

NUMBER OF APPRENTICES REPORTED, AND SCHOOL WORK REQUIRED IN CONNECTION WITH TRAINING, BY TRADE AND BY CITY

[E = Evening school attendance required. PT = Part-time day school attendance required and paid for]

City	Asbestos work	Brick, stone, and marble masonry	Carpentry	Electrical work	Lathing	Painting and decorating	Plastering	Plumbing	Roofing	Sheet-metal work	Steam fitting	Tile setting	Total
Atlanta		E [1] 43	[2] 2				([2])	12				([2])	57
Baltimore		150	38	22		8		PT 23		50			291
Birmingham		E [3] 52	50	30		4	8	E 22		12		([2])	178
Boston		300	425			22	90	225		58		21	1,141
Buffalo		E 120	24				PT 24	PT 45		18			231
Chicago	E 60	E 900	PT 600	PT 650	26	PT 260	400	PT 600	26	PT 75	PT 425	45	4,067
Cleveland		PT 227	PT 218	PT 109	38	PT 86	64	PT 143	6	PT 75			966
Detroit		PT 176		PT 243	PT 12		PT 65	PT [4] 80			PT [4] 18	28	[5] 622
Memphis		28		75			12	60			27	2	204
Milwaukee		PT 88	PT 10	4		30	PT 46	PT 204		PT 24		17	423
Minneapolis		48					24					[6] 10	82
Newark, N. J.		[7] 400	[8] 1,300	[8] 200		[8] 80	([2])	[8] 275		[8] 115			[8] 2,370
New Orleans				100			40	E 30					170
New York		E [4] 1,690	E [4] 1,400	E [4] 1,600	100	E 366	577	E 94		E 300			[9] 6,127
Niagara Falls		E, PT 16	E, PT 25			8	E, PT 13	E 27		E 25			114
Philadelphia		230		210		PT 24	PT 80			E 30		40	614
Pittsburgh		PT 190	E 200	110	PT 25	12	150	PT 145		PT 60		12	904
St. Louis		E 180	160	[4] 150	12	90	62	E 125		E 60		16	[10] 855
Total	60	[11] 4,838	[12] 4,452	[13] 3,503	213	[14] 990	1,655	[15] 2,110	32	[16] 902	[17] 470	191	[18] 19,416

[1] Includes also plasterers and tile setters.
[2] Included under "Brick, stone, and marble masonry."
[3] Includes also tile setters.
[4] Not indentured.
[5] Including 98 not indentured.
[6] Minneapolis and St. Paul.
[7] Includes also plasterers. Night school students not indentured.
[8] Night school students not indentured.
[9] Including 4,690 not indentured.
[10] Including 150 not indentured.
[11] Including 2,090 not indentured.
[12] Including 2,700 not indentured.
[13] Including 1,950 not indentured.
[14] Including 80 not indentured.
[15] Including 355 not indentured.
[16] Including 115 not indentured.
[17] Including 18 not indentured.
[18] Including 7,308 not indentured.

The primary purpose of the investigation was to find out what is the present trend in producing new mechanics for the building industry, what machinery for training apprentices exists, and how it functions. Systematic school training was encountered in several localities, but the bureau did not attempt a detailed study of school work.

The apprentice problem is a local one, and the methods of meeting it vary widely not only as between cities but also as between different crafts in the same city. Even in cities where the problem is treated from the standpoint of the industry as a whole, as in Cleveland, certain crafts in the industry may be acting independently of the general plan or may be doing nothing whatever. Any attempt to generalize must be complicated with exceptions and variations. Each city covered in the bureau's survey has its own problems and its own ways of meeting them, or, perhaps, of letting them alone, and is therefore treated separately in the bulletin.

Organized Systems in Operation

WHILE apprenticeship by formal indenture between employer and boy is not widely practiced, there is coming into use a system which amounts to the same thing. That is the joint apprenticeship committee system. These committees are composed of representatives of employers and of journeymen and, in some cases, of the city school boards. Apprentices are under agreement with the committee to serve their full time and to abide by the laws of the committee, which on its part takes the responsibility of seeing that the boy has employment and proper opportunities for training throughout his apprenticeship.

Where joint committees do not operate, the union may serve the same purpose, the apprentice being in effect indentured to the local union and governed by the terms of the working agreement between the union and the employers, with the union acting as placement agent to keep the boy employed.

Apprentice training has more vitality, is more closely organized, and is affecting the building situation more definitely in those centers in which the division of vocational education of the local school board, usually acting under the Smith-Hughes law, is cooperating than in the cities in which the contractors or the unions are trying to work out the problem alone.

Apprenticeship systems designed and organized to encompass the entire building industry are found only in four cities: Cleveland, Detroit, New York City, and Niagara Falls. In none of them does the plan actually include all of the building crafts, but the organization is such that it can be expanded to cover any additional craft when the craft itself takes the necessary steps. Joint apprentice committees for individual trades are effective agents in several cities, where they operate successfully without any centralized machinery. Cleveland is the outstanding instance of successful operation under the former plan, while Chicago illustrates the method of uncorrelated craft actions.

Because the Cleveland method contains all the elements of systematic apprentice training which the bureau's investigation has found

in any city visited, it will, for purposes of analysis and comparison, be treated as a standard, deviations from which in other cities will be pointed out. As already noted, Cleveland has a system structurally so devised as to cover the building industry, but the foundation of the system is the separate crafts, each functioning through a joint committee of organized workers and organized employers. Cooperating with these committees, but not actually members of them, are the trade teachers and officials of the division of vocational education of the Cleveland public-school system. These joint apprentice committees are active working bodies, which meet regularly, monthly or oftener, and which are the controlling agency of their respective crafts in all matters pertaining to apprenticeship.

Upon action by the committee a formal indenture is made which binds employer and apprentice for the full term of apprenticeship. After the expiration of a probationary period an employer may not discharge an apprentice and a boy may not change employers without the consent of the committee after a hearing.

One of the fundamental doctrines of the system is continuous employment throughout the apprentice period, in order to keep the boy in the trade. If the contractor to whom a boy is indentured runs so short of work that he can not keep him busy, a transfer to another contractor is effected through the trade committee until such time as the original employer can resume his obligation. Responsibility for carrying the boy through his apprenticeship remains with the original employer.

All apprentices in the trades coming under the Cleveland system must attend school four hours one day a week, or one day of eight hours every other week, at the time set by the division of vocational education. While the division of vocational education is only one component element in the organized apprentice-training system in Cleveland, it enforces certain regulations which are in fact the principal cohesive factor in holding the entire scheme together.

Niagara Falls and Detroit are the only other cities covered which show the same correlation between the public schools and the industry in the training of apprentices. In each of these cities the director of vocational education is a member of each trade committee and is in effect the head of the apprentice system. The plan used in Niagara Falls is very much the same as Cleveland's, the only important difference, besides the one just mentioned, being the amount of time spent in school. First and second year boys must attend school eight hours a week—four hours in evening school on their own time and four hours Saturday morning on the employer's time; but pay for day-school work is contingent upon night-school attendance. Third and fourth year boys must attend night school four hours a week.

The system in both Cleveland and Niagara Falls depends for successful operation upon the cooperation of unions and employers and upon the active participation of the joint apprentice committees. In Detroit the trade committees are neither so active nor so interested, and formal indenture is made in only a few trades.

Apprenticeship in the building trades in Chicago depends solely on the initiative and diligence of the craft committees representing organized workers and organized employers. The school system is a

receptive, not an active, agent in apprentice training. Contact between the apprentice classes and the trade is chiefly through coordinators employed by the committees and through the trade teachers. Formal indenture is practiced in all cases and in most trades control and regulation of apprenticeship through joint committees are provided for in the joint working agreements and include compulsory part-time school work. In most trades uniform control is assured by the provision that only those contractors who are members of their trade associations, and hence parties to the joint agreements, may have apprentices. This is not true of carpentry, in which trade there is neither a trade agreement nor a joint apprentice committee. In the plastering trade a once active apprentice committee has become moribund and part-time school training for plasterer apprentices has been discontinued because of general lack of interest.

Under the systems thus far discussed, when a craft participates at all it does so wholly. That is to say, all the apprentices in a given trade, with possibly an occasional exception in an open shop, are included in and regulated by whatever system is followed by that trade. Only a small percentage of the contractors may be involved, but such apprenticeship as exists comes under the unified control of the organized agency.

This situation does not exist in New York City, in which an apprenticeship commission, founded and fostered by the New York Building Congress, is the medium for promoting apprenticeship in the industry. The commission is composed of representatives of the Building Congress, the Building Trades Employers' Association, and those building trades unions which are identified with it. Participation in the work of the commission on the part of the unions is determined by each local union of each craft. No craft in the city is identified with the commission plan to the extent of having all its local unions cooperating.

Structurally the New York Apprenticeship Commission is composed of apprentice committees of the component trades. Functionally the trade committees are weak and inactive, and the vital agency is not the craft organization but the superstructure representing the industry. The commission has no power and the trade committees exercise none. There is no formal indenture except in painting, no provision for continuous employment and no machinery for assuring it, and no part-time school training. The commission is the point of contact between the school system and those apprentices coming under the jurisdiction of the commission who are attending the night-school classes provided, either voluntarily or because of whatever pressure may be brought to bear upon them. Further than that, and its efforts to promote and encourage apprenticeship, the organized machinery in New York does not go.

One craft which is not a part of the apprenticeship commission has a joint apprenticeship committee composed of two representatives of the union and two of the contractors' association and exercises complete control over apprenticeship in the trade, that of sheet-metal work. Apprentices are formally indentured, continuous employment is assured, and attendance at night school four hours a week is compulsory.

The New York Apprenticeship Commission system furnished the pattern on which the Boston Building Congress built its joint apprenticeship commission in 1923. As in New York, the sheet-metal trade remained outside and regulated its own apprentice system through its joint trade committee under its working agreement.

The Boston commission depended upon craft committees for all activities relating to apprentice regulations and control, including the enforcement of school attendance, while it undertook to secure continuity of employment and school training. Indenture was not stressed. The tendency of the craft committees, however, was to become increasingly less active and to place more and more of the burden of carrying out the program on the officers of the commission. Founded as it was on craft support, when the craft support was completely withdrawn the superstructure collapsed and the Boston Apprenticeship Commission passed out of existence four years after its establishment. Apprentice classes in the city trade school have since been discontinued for want of pupils, since no compulsion has ever been exercised.

Joint apprentice committees composed of representatives of organized employers and organized journeymen are effectively controlling apprenticeship in some trades in cities in which real apprenticeship is perhaps not followed in any other trade. The steam-fitting trade in Memphis, Tenn., is a case in point. The plumbing trade in Pittsburgh is another illustration of successful prosecution of an apprentice system by a committee composed not alone of employers and journeymen but also of materialmen and the school board.

Apprenticeship in Milwaukee is controlled by law and regulated by the apprentice department of the Wisconsin Industrial Commission. Newark, N. J., has an educational movement under the Smith-Hughes law which involves trade training but which is not actual apprenticeship in an industrial sense. It seems, nevertheless, to be working out to essentially the same ends, although it is extremely doubtful if the large number of boys reported by the various crafts as being in training both on the job and in school will complete their training and be absorbed into the industry.

Elsewhere in the field covered by the bureau nothing was found which could be considered a definite organization working toward a definite end.

Supply of Trainees

THE cry that "boys won't go into the trades" is not borne out by the investigation. On the contrary, it is quite apparent that the dearth of apprentices in the building trades is not due to a dearth of boys interested in entering those trades. The unions everywhere reported long waiting lists of applicants for apprenticeships, and joint committees agree that the problem does not lie in finding material to train.

Because of the limited opportunities for placing boys with contractors as apprentices, some unions, where they are sufficiently in control, make a practice of confining apprenticeships to the sons and other relatives of the men in the trade. This is especially true in bricklaying and plastering. It is frequently asserted that a boy has no chance to become a bricklayer unless his father is in the

trade either as contractor or journeyman, and in a number of cases that is quite true. It has been true also in plumbing in some localities. The Chicago master plumbers have broken up the practice, followed there for years, of granting apprenticeships only to sons of the men in the trade. In Pittsburgh the working agreement in the electrical trade provides that the employer shall select the apprentice one year and the union the next year, and it is tacitly understood that the union may select only sons of journeymen if it chooses to do so.

The building trades unions in St. Louis have a very definite policy of "keeping the trade in the family" and enforce it to such an extent that one contractor declared that "a boy has as good a chance to get into West Point as into the building trades unless his father or his uncle is a building craftsman."

Apprentice Quotas

IN PRACTICAL application, union regulations governing the ratio of apprentices to journeymen prove to be far less a deterring factor in apprentice training than is commonly assumed. Where the highly developed systems prevail union regulations are apt to be abrogated entirely and the whole question of quota is handled by the joint committee on the basis of the number of apprentices the trade can support in continuous employment.

Where the method is more desultory the union quota is not an issue for the reason that relatively few contractors have any apprentices at all, and certainly have no disposition to take on more than the union agreement permits.

If union regulations were in fact responsible for restricting opportunities for apprentices, one would expect to find greater development in open-shop centers. Actually, however, it is much harder to find an apprentice in an open than in a closed shop. Only three open-shop contractors were encountered in the course of the investigation who had more apprentices than they would have been granted under union agreement.

Attitude of Contractors

THOSE most closely in touch with the situation—school authorities, members of apprenticeship committees, and contractors who are cooperating in the effort to the limit of their ability—do not hesitate to declare that the individual contractor is chiefly responsible for the shortage of apprentices and the absence of a training system. Short-sightedness, indifference, and selfishness are the charges brought against their colleagues by the contractors who are carrying the load of apprentice training for the industry.

It is conceded that the provision for continuous employment, the one element which is vitally necessary to keep the boy, is the greatest stumblingblock in the path of the contractor doing a small, or even a moderately large, business. Accordingly it is the opinion of some of the men in the industry that the problem of seasonal building will have to be met before an effective apprentice system can be evolved.

Attitude of Unions

AS a rule trade organizations, both of employers and of journeymen, have at least an appreciation of the needs of their respective trades in regard to apprentice training, even though they may be doing nothing constructive to promote it. And while there are exceptions, taken as a whole it is where union organization is strongest that apprentice systems function most effectively. Local unions were found here and there which definitely oppose apprenticeship, but more instances occur in which the unions are doing all that is being done to provide new mechanics. In one "closed-shop" center, on the other hand, not only strict limitations as to the number of apprentices, but dictation as to who may become apprenticed are enforced by unions strong enough to impose them upon employers. Instances of wage scales so high that few contractors can afford to pay them to learners suggest restriction by a method more indirect and probably more effective than the ratio system.

Speaking of the attitude of both contractors and unions on the question, a prominent architect of New York who was instrumental in establishing the apprenticeship commission of the New York Building Congress, said:

> Recriminations flew thick and fast between the contractors and the labor men when we first tried to get together on a program, each side blaming the other for conditions. But that isn't going to solve the apprentice problem, and so far as I can see into the situation, both sides are tarred with the same stick.

Training on the Job

WHILE it is generally admitted that an apprentice is at best a financial liability for the first year, and often longer than that, it is not that phase of the problem which is objected to so much as it is the added difficulties on the job when an apprentice is taken on. The expression most frequently used by contractors is that they "can't be bothered with boys." Rapid building makes training on the job not only unprofitable but well-nigh impossible. Employers and journeymen agree that it is simply not possible to carry out any real program of teaching on the job. To this school authorities and lay opinion, equally interested but not so directly involved, add that whether possible or not, there certainly is no training on the job. The boy merely "rubs off" what he can while he is working with journeymen, and where school work is part of his training the school is expected to supply, in a few hours a week, the technical and mechanical knowledge which the job can not, or at any rate does not, provide. One authority made the unequivocal declaration that "there simply is no such thing as training apprentices on the building."

National Programs

AS ALREADY stated, apprentice problems and methods of dealing with them vary widely in different localities and crafts, and in the various crafts in the same locality. At the same time a few craft organizations have definite national programs which are of fairly wide application.

Tile Setting

The most thoroughly organized machinery for apprentice training in the entire building industry is that of the tile trade. A concerted program with fixed rules has been drawn up, and in all the cities visited in which apprentices are being trained for the trade, that program is followed, except in the jurisdiction of the New York tile setters' union.

A national agreement between the Tile and Mantel Contractors' Association and the Bricklayers, Masons, and Plasterers' International Union covers "general rules and regulations governing the employment, training, and instruction of apprentices for the tile and mantel industry," and provides machinery for carrying out the terms of the agreement through the joint arbitration boards of the local contractors' associations and the local unions.

Besides urging at least a minimum of technical school training for all apprentices, and providing for six months' credit on the apprenticeship term for three months' intensive trade school work, the industry supports its own trade school. The National School for Tile Setters, at Dunwoody Industrial Institute in Minneapolis, is operated jointly by the Tile and Mantel Contractors' Association and the Associated Tile Manufacturers.

The course of study has been worked out by representatives of the two associations and the teachers, both of whom are practical craftsmen, with the help of an educational adviser. An intensive course of 13 weeks' duration covers "all basic operations in tile setting," and related work in blue-print reading, drawing, and mathematics. Classes are limited to 20 students in each 13-week term. Students are apprenticed tile setters who are sent to the school by their employers. All of the operating expenses of the school, transportation of the students to and from Minneapolis, and an allowance of $6 weekly to each boy, are paid by the Associated Tile Manufacturers and the Tile and Mantel Contractors' Association. Living expenses in addition to the $6 allowance are generally met by the employer to whom the boy is indentured. Whether or not a contractor makes use of the school is left to his own discretion.

Marble Setting

Apprenticeship in marble setting follows substantially the same system as that in tile setting, under a national agreement between the National Association of Marble Dealers and the Bricklayers, Masons, and Plasterers' International Union. The marble dealers operate a school in Knoxville, Tenn., which gives a three months' intensive preliminary course of training similar to that at Dunwoody.

Plumbing

The National Association of Master Plumbers has an apprentice committee which is the medium for active propaganda for the establishment of a uniform apprentice system in the heating and plumbing trades. "The problem of creating trained workers," the association declares, "is essentially an employer's problem. The training of apprentices is a duty no employer can conscientiously escape." The

objective of the committee is declared in its slogan, "At least one apprentice in each shop."

This is entirely a movement of master plumbers, in which the journeymen plumbers' union as a national organization has taken no part. Locally, the plumbers' union is cooperating in some cases and opposing the program in others. However, the plumbers' union is exclusively a journeyman organization, attempting no control of apprenticeship beyond a fixed training period and the number of boys allowed in union shops. Hence the master plumbers have a fairly free hand in formulating an apprentice program. As a matter of fact, the employment and training of apprentices are more apt to be the practice in open shops than in union shops, and it frequently happens that the master plumbers who are most active in promoting the program advocated by the national association are the open-shop men. St. Louis and Birmingham are cases in point. Except in Chicago, Cleveland, and Pittsburgh the school-training program is promoted wholly by the master plumbers without cooperation from the union. In some instances master plumbers are running the apprentice classes without help from either the unions or the local school boards. In Birmingham they meet all the expenses of their plumbing school, and in St. Louis they pay the boys' tuition in a private trade school.

In most of the cities visited the master plumbers are making some effort to promote an apprentice system and to produce qualified mechanics. This does not apply to Atlanta, New York City, Niagara Falls, or Minneapolis. In New York and Niagara Falls what little is being done to encourage apprenticeship and school training is the work of the unions and not of the employers. Master plumbers of Minneapolis started an ambitious program a few years ago but it was short-lived.

Systems in which organized plumbing employers, organized journeymen, and the school boards are cooperating are in force in Chicago, Cleveland, and Pittsburgh, and are among the really effective apprentice plans in present operation. Part-time day-school courses on paid-for time, either for all or for part of the apprentice term, are found in Baltimore, Buffalo, Detroit, and Milwaukee, as well as in the three cities just mentioned.

Three cities, by joint action of employers and journeymen, have substituted a well-developed apprenticeship for the "helper" system in steam fitting. In Chicago and Detroit part-time school training is given. In Memphis, while night-school work is available, it does not constitute part of the apprentice-training program, as in the other two cities. Elsewhere the custom of one helper to a fitter is practiced, although some effort is being made in Philadelphia and St. Louis to institute apprenticeship.

Bricklaying

The bricklaying trade presents a contrast to the plumbing trade, in which it is the employers who are interested and active in promoting apprenticeship and the unions which, on the whole, are indifferent or openly hostile. The indenture of apprentices is the policy and the practice of the Bricklayers, Masons, and Plasterers' Inter-

national Union, a practice in which contractors, by and large, merely acquiesce. Apprenticeship of bricklayers by indenture exists in some degree in nearly every city visited. In fact, the opinion was freely expressed in several cities, not only by union officials but by representatives of building-trades employers' associations and by individual contractors, that apprenticing to the bricklaying trade is being decidedly overdone. Apprentice bricklayers are in the majority of cases sons of journeyman bricklayers.

National control is felt most effectively in the matter of keeping apprentices in the trade and compelling the observance of indenture contracts and the completion of apprenticeship. Every bricklayer apprentice is registered by the international union and is under certain obligations to it. Violation of an apprentice contract in any jurisdiction is punished by withdrawal of registration by the international office. By what might be called a blackballing process an apprentice who willfully breaks his indenture is debarred by the international from becoming a union bricklayer in any local jurisdiction.

Indentures are practically uniform, a printed form furnished by the international office being frequently used. School training is a national policy and is nearly always mentioned in the apprentice contract. In nine cities [1] school attendance in bricklaying classes, either on paid-for time or at night school, is required under the indenture, either for the entire term or for some part of it. The unions in two other cities [2] require night-school courses in blue-print reading, drawing, and mathematics, although this provision is not always rigidly enforced. The Chicago union operates a school of its own for apprentices.

Local control is in all cases exercised through a joint apprenticeship committee or the joint arbitration board acting as an apprentice committee.

Electrical Work

While the International Brotherhood of Electrical Workers has no apprentice program, apprenticing boys to the local union is a practice which is followed in nearly every instance in which any organized effort is being made to train mechanics. In inside wiring, as in bricklaying, the machinery is in the hands of the unions, and the contractors are rarely actively a part of the system. Variations and differences are too many and wide to discuss briefly. Basically the plan is to make the apprentice a member of the organization and to assign him to one contractor for the first year. During that year he is required to remain in the same shop, acting as stock clerk or "locker boy," in order to become familiar with materials and tools. After that his obligation is to the union, which serves as placement agent to keep him employed throughout the remainder of his term. In this way his training and experience can be made so diversified as to cover the entire field. From the contractors' point of view these trainees are helpers, with whom they have no contractual relations except, perhaps, through a working agreement. The union, on the

[1] Atlanta, Boston, Buffalo, Cleveland, Detroit, Milwaukee, New York, Niagara Falls, and Pittsburgh.
[2] Birmingham and St. Louis.

other hand, attempts responsibility for continuous training and fairly continuous employment.

Supervision over the work of apprentices and actual teaching on the job are carried out better in the electrical trade than in others, especially in localities where the union, in its working agreement, guarantees the work of its members. School work on paid-for time was found only in Chicago and Cleveland, and for the first-year apprentices in Pittsburgh. Evening school work is obligatory for the advanced apprentices in Pittsburgh, and is "required" or "encouraged" in New Orleans, New York, and Philadelphia.

Various disciplinary devices are undertaken by the unions, but, owing to the popularity of the trade, they are not particularly needed. Some unions insure completion of apprenticeship by requiring in advance annual installments on the initiation fee, the money to be forfeited if the boy leaves the trade. In spite of the lack of contract or obligation on the part of employers to keep an apprentice, the record of completed terms is as high in the electrical trade as in any of the building crafts.

Sheet-metal Work

The National Association of Sheet-Metal Contractors has drawn up an apprentice training plan following closely that of the National Association of Master Plumbers. It includes a detailed course of study in shop work and related subjects. This is so far merely a plan and has no active promotion behind it. The Sheet Metal Workers' International Association declares in its constitution that it "favors the adoption of a sound system of apprenticeship which will give the fullest opportunity to apprentices to learn the trade of sheet-metal workers in the various branches of the industry in a thorough manner."

However, very little real apprentice training exists in the trade. It seems to be the least popular of all the building trades, with the possible exception of painting. It attracts fewer entrants and loses a far larger percentage of those who do enter than does any of the crafts with a more widely practiced apprentice plan.

In 13 of the 19 cities visited sheet-metal apprenticeship is planless and haphazard even where some attempt is made to do more than follow the helper system. On the other hand, well-developed training methods, operating through joint committees and including formal indenture and school work, obtain in Boston, Chicago, Cleveland, New York, Pittsburgh, and St. Louis. The Pittsburgh method is the plan of the national association in actual operation and includes school work on paid-for time at Carnegie Institute. The Chicago and Cleveland plans also embrace school work on the employer's time. In all three cases school courses cover shop practice and related work in pattern drawing and mathematics. Compulsory attendance at evening schools for courses in pattern drawing, mathematics, and applied physics is the practice in the other three cities.

In New York and Boston joint apprentice committees of unions and employers' associations are working bodies definitely controlling all phases of apprenticeship in the sheet-metal craft. The system is less closely coordinated in Chicago, Pittsburgh, and St. Louis, although there, too, control is by joint action of unions and organized

contractors under an apprentice agreement. In Cleveland the sheet-metal trade has only very recently become identified with the general program of apprentice training followed by the building industry of that city.

Trades Having No Apprenticeship Policy

THUS far only the positive side of the picture of apprenticeship in building construction and what actually is being done have been presented. There remains the negative side, the story, as it developed during the survey, of what is not being done. That story, too, is a local one, but just as the trades already discussed show trends toward the development of fairly uniform apprentice systems, others show a definite tendency, as crafts, to disregard the whole matter of apprenticeship and trade training. Always admitting the exceptional isolated cases found in the reports by cities, the three remaining important organized trades in building construction—carpentry, plastering, and painting and decorating—have no apprentice policy and no apparent interest.

Plastering

The attitude of the plasterers' unions is often frankly one of restriction of apprenticeship, and the practice of apprenticing only sons of journeyman plasterers is quite general. On the other hand, the seasonal nature of the work encourages the "hire and fire" method on the part of contractors, who feel that continuous employment under an apprentice contract is impractical in their line. They deplore, however, the scarcity of skilled men in ornamental work, for which there is a rapidly increasing demand. Apprentices as a rule are being trained in ornamental work, but the ratio of apprentices to journeymen is very low, even in cities where systematic training is undertaken.

Carpentry

Several elements seem to enter into the apprentice situation in the carpentry trade which make any definite development difficult. One is the changing character of the work itself and the pronounced tendency toward specialization, a change in which substitution of materials in large building operations plays a considerable part. Another is the fact that there is no serious need for apprentices in the trade, since it is so readily recruited from semiskilled laborers, helpers, and "handy men" who have had enough experience to do much of the work required in ordinary building. Still another phase, noticeable in many of the cities visited, is the absence of contact between the union and the contractors through a working agreement. It was a common occurrence throughout the investigation to find general contractors who keep bricklayer apprentices as a matter of course but never have a carpenter apprentice.

Formal indenture is rare in the carpentry trade outside a few cities, and no policy of continuous employment is undertaken. The apprentice is not required to serve his full time with one employer and there is no control of his wage scale, so he shifts from job to job and frequently is receiving journeyman's pay long before his four years' apprenticeship has expired.

Painting and Decorating

Conditions in the painting and decorating trade with regard to apprenticeship are chaotic. In the opinion of various old established contractors the chief difficulty is the instability of the trade. Both employers and workers, they say, are largely floaters. Objection is made by contractors to a long term of apprenticeship in a trade in which, except in high-class decorating, they consider a long learning period unnecessary. Where carefully regulated apprentice training is found it is largely confined to the decorating branch of the work, in which skill is required and there is a demand for workers. On the whole, the supply of painters is such that no real need of new material is felt.

Another important deterrent in apprenticing to the painting trade is its unpopularity among boys. It is difficult to interest boys in the work, and even more difficult, apparently, to hold the small number who take it up. This is as true where there is organized machinery and school work as it is of cities in which the whole trade is haphazard.

Other Crafts

Two other crafts, structural-iron work and elevator construction, were included in the study, but nothing therein was found in any city which could be considered as coming within the bureau's definition of apprenticeship.

PRODUCTIVITY OF LABOR

Blast-Furnace Productivity in the United States

By Ethelbert Stewart, United States Commissioner of Labor Statistics

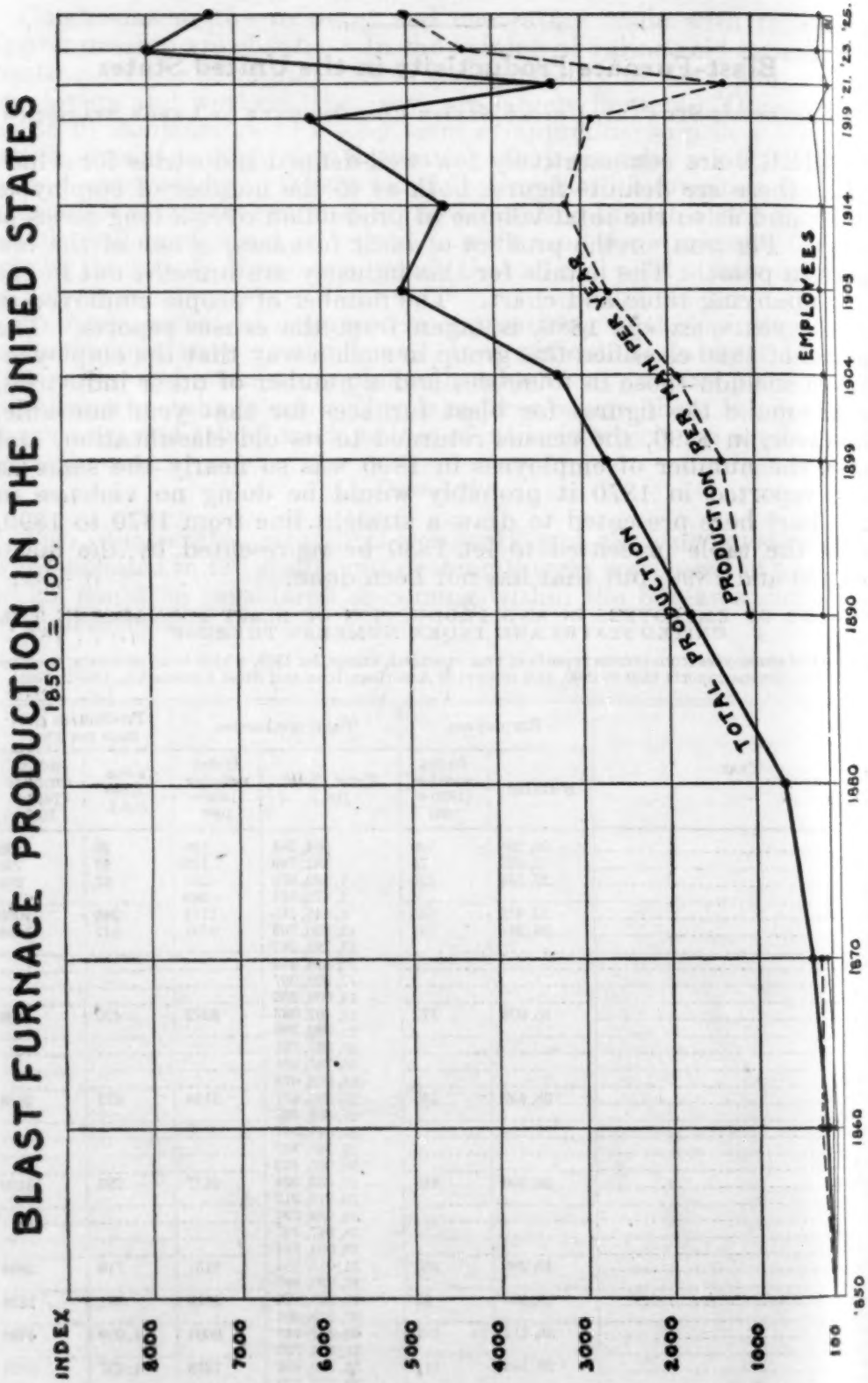
THERE are comparatively few well-defined industries for which there are definite figures both as to the number of employees and as to the total volume of production over a long series of years. Pig iron, or the product of blast furnaces, is one of the few cases in point. The details for this industry are brought out in the accompanying table and chart. The number of people employed in census years, except 1880, is taken from the census reports. The census of 1880 classified this group in such a way that the employees shown include those in foundries and a number of other industries, which make the figures for blast furnaces for that year unusable. However, in 1890, the census returned to its old classification, and since the number of employees in 1890 was so nearly the same as that reported in 1870 it probably would be doing no violence in the chart here presented to draw a straight line from 1870 to 1890, or in the table presented to let 1880 be represented by the mean of 1870 and 1890, but that has not been done.

NUMBER OF EMPLOYEES IN AND PRODUCTION OF BLAST FURNACES IN THE UNITED STATES AND INDEX NUMBERS THEREOF

[Number of employees from census reports of year specified, except for 1919, which is an estimate; production from census reports 1850 to 1890, and reports of American Iron and Steel Association, 1899 to 1926]

Year	Employees		Total production		Production per man per year	
	Number	Index number (1850=100)	Tons (2,240 lbs.)	Index number (1850=100)	Tons (2,240 lbs.)	Index number (1850=100)
1850	20,298	100	504,245	100	25	100
1860	15,927	78	881,749	175	55	220
1870	27,554	136	1,832,876	363	67	268
1880			3,375,911	669		
1890	33,415	165	8,845,185	1754	265	1060
1899	39,241	193	13,620,703	2701	347	1388
1900			13,789,242			
1901			15,878,354			
1902			17,821,307			
1903			18,009,252			
1904	35,078	172	16,497,033	3272	470	1880
1905			22,992,380			
1906			25,307,191			
1907			25,781,361			
1908			15,936,018			
1909	38,429	189	25,795,471	5116	671	2684
1910			27,303,567			
1911			23,649,547			
1912			29,726,937			
1913			30,966,152			
1914	29,356	145	23,332,244	4627	795	3180
1915			29,916,213			
1916			39,434,797			
1917			38,647,397			
1918			39,054,644			
1919	43,296	213	31,015,364	6151	716	2864
1920			36,925,987			
1921	18,698	92	16,688,126	3310	331	1324
1922			27,219,904			
1923	36,712	181	40,361,146	8004	1,099	4396
1924			31,405,790			
1925	[1] 29,188	144	36,700,566	7278	1,257	5028
1926			39,372,729			

[1] Relining labor included by some plants in preceding years is eliminated in 1925.


BLAST FURNACE PRODUCTION IN THE UNITED STATES
1850 = 100.
INDEX
8000
7000
6000
5000
4000
3000
2000
1000
100
1850
1860
1870
1880
1890
1899
1904
1905
1914
1919 '21. '23. '25.
TOTAL PRODUCTION
PRODUCTION PER MAN YEAR
EMPLOYEES

[1124]

The figures of total production of pig iron in the United States were taken from the census reports from 1850 to 1890 and the reports of the American Iron and Steel Association from 1899 to 1925. The production of pig iron in the United States rose from 504,245 long tons in 1850 to 36,700,566 long tons in 1925. Assuming 1850 as 100, the index for 1925 would be 7278, or an increase of 7178 per cent.

The production per man per year is arrived at, of course, by dividing the total production by the number of employees. This shows an increase in the output per man per year from 25 long tons in 1850 to 1,257 long tons in 1925. The index of production per man in 1925 was 5028, or an increase of 4928 per cent from 1850.

It will be noted that between 1850 and 1870 there was no great divergence between the three factors—production, employment, and output per man-year. From 1870 on, the trend of production is very sharply upward, the index number in 1870 being 363. By 1890 the index of production had reached 1754 and the index of output per man-year 1060, while the employment index was 165.

One of the more puzzling problems revealed by this presentation is the tremendous drop in 1921. Actual employment dropped below the figure of 1850, or 71 years prior to the date under discussion. While production in 1921 was only about half what it was the preceding census year, it still showed an index number of 3310 while the output per man-year dropped to 331 tons, the index number being 1324, as against an index number of 3180 in 1914 and of 2864 in 1919.

The tremendous slump in productivity just after the war deserves a very much more careful study than it has received. We do not know all of the factors entering into this. The slump was world-wide, affecting the countries that did not participate in the war with almost as great severity as those that did. One of the perfectly apparent reasons is the demoralizing effect upon all labor of the cost-plus plan of letting contracts during the war. Under a cost-plus plan the less a worker does the more valuable he is to his employer, and petty bosses were not slow in making this apparent to the workers themselves. We are fortunate in having recovered from the influence of that diabolical scheme as rapidly as we have.

A second very clear explanation is that the younger, more enthusiastic, energetic, and "peppy" employees in all industries enlisted for the war, leaving a much less experienced and less dependable group of workers to take care of the industry. Even when the enlisted men returned the mental and physical effect of the war was very noticeable for some time.

Another cause, and perhaps a more easily measurable one, was that though production fell from practically 37,000,000 tons in 1920 to less than 17,000,000 in 1921, a certain per cent of the employees must be retained if the plant is to operate at all, and that regardless of production. A very apparent weakness in this reasoning is developed by the fact that the index of employees fell much more noticeably than did the index of production. For instance, the index of employees in 1919 was 213, and in 1921 it was 92, while the index of production dropped from 6151 to 3310.

In view, again, of the widespread decrease in productivity affecting Denmark, Norway, and Sweden practically as much as it did England and the United States, attention must be called to the fact that a more comprehensive study of that slump than has yet been made is needed.

Even the second reason here assigned is not entirely defensible, for as jobs become scarce there is the general tendency to work hard to hold on to the job in hand. For instance, the chart herewith shows that while production declined from 1909 to 1914 production per man per year was going steadily up, and that while production from 1914 to 1919 was going up very rapidly production per man per year was going down. It must be understood that this chart, while drawn in continuous lines, is really a "spot" chart and speaks for census years only, because the number of employees, which is the essence of our calculations, could be secured only for census years. From 1850 to 1900 these censuses covered 10-year periods; from 1900 to 1919 they covered 5-year periods; since 1919 they have covered 2-year periods. Therefore, when we say that production declined from 1909 to 1914 it does not mean that this was true of each year during the period, and as a matter of fact it was not true. But from the very inception of the war, and before the United States entered the conflict at all, production per man began to decline. On the other hand, from 1923 to 1925 production dropped almost perpendicularly while output per man per year went steadily upward. And these facts likewise are true the world over in so far as productivity figures in foreign countries are available and dependable. The psychological effect of war upon human productivity is here only suggested. There is no serious attempt to furnish an answer.

However, the real purpose of this article is to show the enormous and continuous spread over three-quarters of a century between the number of employees and the volume of production; 36,700,566 tons of pig iron, or 7278 per cent increase, means the actual employment of less than 9,000 more persons than it did in 1850, or an increase of 44 per cent. In other words, the manufacturing industries, particularly as represented by the blast furnaces, are not going to take care of the increase in the working population. Concretely stated, the facts are these: The increase in population from 1850 to 1925 was 397.5 per cent. If we take blast furnaces as an example, the take-up of this population by industries increased 44 per cent. Production increased 7178 per cent. Production per man increased 4928 per cent. Stated differently, the number of wage earners in blast furnaces in 1850 was 882 per million of population. In 1921, which, however, was a slump year, there were 173 wage earners in this industry per million of population. And many other industries, while not so spectacular, showed the same tendency.

It must be apparent that the attitude which one will take toward these figures will depend upon whether one is interested in the prosperity that comes from enormous production and almost startling output per employee or whether one is looking for a job. The problem of to-day is to reconcile these two points of view.

Statistics of Mechanical Loading in Bituminous Coal Mines in 1926

IN 1926 a total of 10,022,195 tons of bituminous coal was loaded mechanically by 455 machines in 131 mines, according to data furnished by the United States Bureau of Mines.[1] In addition there were 33 other mines reporting 43 loading machines in which the use of the machine was still in the experimental stage only. These figures do not include machines that have been abandoned or a few machines that were used in 1925 and will be used again but which loaded no coal in 1926.

There is in use in the coal industry a wide variety of mechanical devices designed to reduce the labor of hand shoveling into mine cars and to facilitate the work of transporting the coal from the point where it is shot down to the place of delivery to the rail transportation system of the mine.

The table below includes only those devices which make possible loading most of the coal handled without hand shoveling. The table therefore covers loading machines; combined cutting and loading machines; scraper loaders; shaking trough conveyers, equipped with a shovel attachment at the front end such as the so-called "duckbill"; conveyers equipped with a cutting device; and also certain "self-loading" conveyers designed to receive the coal as shot down. Strictly speaking "self-loading" conveyers are not loading machines, but they are stated to load out from one-third to a half or even two-thirds of the coal without hand shoveling, and they have therefore been included in the table. The figures in the table do not cover other face conveyers and mine-car loaders on which practically all the coal has to be shoveled by hand, although such devices, by reducing the height to which the coal has to be lifted by the miner, greatly reduce the labor of hand shoveling. Complete statistics covering the use of hand-loaded face conveyers in 1926 are not available, but the information at hand indicates a considerable number of installations of this type, particularly in central Pennsylvania. Statistics of mine-car loaders, of which the Jeffrey pit-car loader is the principal type, have been collected by the bureau for 1926, but can not be published without disclosing the business of individual manufacturers. It may be said, however, that the mine-car loader has been widely introduced, especially in Illinois. From the information available it appears that the total quantity of coal handled by mine-car loaders and hand-loaded face conveyers in 1926 was over a million tons. Added to the 10,022,195 tons loaded by machines, this gives a grand total of more than 11,000,000 tons produced by "mechanized" mining in 1926. In its statistical report for 1927 the bureau plans to include a complete analysis of the use of conveyers.

The figures in the table relate only to deep mines. In connection with the growing mechanization of underground operations, however, it is of interest to refer to the development of surface stripping. In 1926 there were 237 strip pits in the bituminous coal fields which employed 410 power shovels and produced 16,922,695 tons of coal.

[1] From weekly coal report of United States Bureau of Mines, April 21, 1928, based upon study, by F. G. Tryon, which will appear later as a report of the Bureau of Mines.

A total of 1,879,726 tons was loaded by machines in 1923, of 3,495,522 tons in 1924, and of 6,243,104 tons in 1925. From 1923 to 1924 the increase in the quantity handled by machine was thus 86 per cent and from 1924 to 1925 it was 78 per cent.

An exact comparison between 1925 and 1926 is not possible because of certain changes in classification. The figures for 1923 to 1925 included mine-car loaders of the type of the Jeffrey pit-car loader, which, as already explained, were not counted in the 1926 table. On the other hand, the figures for 1926 include certain "self-loading" conveyers for which data were not available in 1923 to 1925. Allowing for these differences in classification, it appears that the increase in the quantity handled by machines from 1925 to 1926 was between three and a half and four million tons, and the percentage of increase may be placed at approximately 60 per cent. Thus, although an exact comparison can not be made, it is clear that there was a very large growth in the quantity loaded by machine from 1925 to 1926.

For 1927 the reports are not yet complete, but those received indicate rapid progress in the number of machines installed. The tonnage loaded in 1927, however, may not show much increase on account of the long suspension in Illinois and Indiana.

As the table shows, by far the largest group of mechanical loaders, both in numbers installed and tonnage handled, were mobile loading machines, of the digging and loading or cutting and loading types; 295 such machines loaded 7,786,360 tons in 1926. The second largest group were the scraper loaders, which handled 1,554,372 tons. A third group comprised various types of combination conveyer-loaders, which handled 681,463 tons in 1926.

The recapitulation by type of machine, it is explained, is given because the scrapers and combined conveyer-loader types perform certain work in gathering and transporting as well as in loading the coal. The selection of a particular type depends largely on natural condition in the mine, and consequently the distribution of the types varies widely from State to State. It can not be shown by individual States, however, without disclosing individual operations.

Of the 131 mines that used mechanical loaders in 1926 there were 13 in which the process of mechanization had so far advanced that 90 per cent or more of the mine output was loaded mechanically. In 55 of the mines, on the other hand, the proportion loaded mechanically was still less than 10 per cent. For the entire group of 131 mines the proportion loaded mechanically was 24.9 per cent, the total output of these mines including coal loaded in workings still operated by hand being 40,329,133 tons. In certain States the proportion was much higher. The seven machine-loading mines of Wyoming loaded 63.6 per cent of their production mechanically, and the 13 mines of Indiana loaded 89.4 per cent mechanically.

Indiana led all other States in tonnage mechanically loaded in 1926 with a total of 2,166,737 tons, followed by Illinois with 2,035,521 tons, West Virginia with 2,000,636 tons, Wyoming with 1,142,304 tons, and Virginia with 1,086,480 tons. (The greater part of the total for Virginia was loaded in the extension of the Pocahontas field in Tazewell County, Va.) Pennsylvania reported 855,578 tons, a large part of which was handled by "self-loading" conveyers. Eleven other States loaded by machine, but the quantity was relatively small.

The coal mechanically loaded in 1926 was 1.8 per cent of the total production of all bituminous mines in the country. In some States,

however, a considerable part of the output was loaded by machine. Thus in Utah the proportion was 2.6 per cent of the State production; in Illinois it was 2.9 per cent; in Virginia, 7.7 per cent; in Indiana, 9.3 per cent; and in Wyoming, 17.6 per cent. Wyoming thus leads all other States in percentage of total output loaded by machine.

MECHANICAL LOADING UNDERGROUND IN BITUMINOUS COAL MINES IN THE UNITED STATES IN 1926

[The table covers all devices by which most of coal handled is loaded without hand shoveling. It does not cover mine-car loaders and conveyers on which all the coal has to be shoveled by hand, although it should be remembered that such devices, by reducing the height to which the miner must lift the coal, greatly reduce the labor of hand shoveling]

State	Mines that reported loading by machine in 1926						Other mines reporting loading machines but not tonnage [1]	
	Number of mines	Number of loading machines	Net tons loaded by machine	Total production of these mines: Net tons, including hand loading	Total production of these mines: Per cent loaded by machine	Per cent of State output that was loaded by machines	Mines	Machines
Alabama	3	30	111,803	458,455	24.4	0.5	1	[2]
Colorado	3	[2]	[2]	[2]	[2]	[2]	2	[2]
Illinois	18	107	2,035,521	8,050,665	25.3	2.9	1	[2]
Indiana	13	87	2,166,737	2,423,681	89.4	9.3		
Iowa	6	8	84,325	949,732	8.9	1.8	1	[2]
Kentucky	10	20	181,763	4,288,921	4.2	.3	5	5
Maryland	1	[2]	[2]	[2]	[2]	[2]		
Michigan	2	[2]	[2]	[2]	[2]	[2]		
New Mexico	1	[2]	[2]	[2]	[2]	[2]		
North Dakota	1	[2]	[2]	[2]	[2]	[2]		
Ohio	3	10	122,576	1,303,590	9.4	.4	2	[2]
Pennsylvania	20	48	855,578	5,512,447	15.5	.6	4	5
Tennessee	2	[2]	[2]	[2]	[2]	[2]	2	[2]
Utah	6	8	114,619	1,214,530	9.4	2.6	1	[2]
Virginia	6	17	1,086,480	3,391,417	32.0	7.7	2	[2]
West Virginia	29	57	2,000,636	9,354,888	21.4	1.4	12	18
Wyoming	7	44	1,142,304	1,796,396	63.6	17.6		
Undistributed		19	119,853	1,584,411	7.6	.5		15
Total	131	455	10,022,195	40,329,133	24.9	1.8	33	43
Recapitulation:								
Scraper loaders	50	133	1,554,372	40,329,133	24.9	.3	13	16
Shaking-shovel and "self-loading" conveyers [3]	10	27	681,463			.1		
Other loaders [4]	71	295	7,786,360			1.4	20	27
Total	131	455	10,022,195	40,329,133	24.9	1.8	33	43

[1] In practically all of these the use of loading machines was in the experimental stage only.
[2] Included in "Undistributed" to avoid disclosing individual operations.
[3] Includes conveyers equipped with shovel attachment on front end (so-called "duckbills"), on which reports indicated 60 to 90 per cent loaded without hand shoveling, and also 2 makes of long-face conveyors designed to receive coal as shot down, on which a large part of the coal (sometimes more than half) is loaded without hand shoveling. These types can not be shown separately without disclosing individual operations.
[4] Includes mobile digging and loading machines and cutting and loading machines.

Output per Worker in French Coal Mines, 1913 to 1925

THE following table, showing the average daily output of underground workers and of underground and surface workers combined, in French coal mines, is taken from the 1928 report [1] of the Central Committee of the Coal Mines of France. The output has been converted to tons of 2,000 pounds.

AVERAGE DAILY OUTPUT OF UNDERGROUND, AND OF UNDERGROUND AND SURFACE WORKERS, IN FRENCH COAL MINES

Year	Daily output of underground workers	Daily output of underground and surface workers	Year	Daily output of underground workers	Daily output of underground and surface workers
	Tons	*Tons*		*Tons*	*Tons*
1913	1.08	0.77	1921	0.85	0.55
1914	1.07	.74	1922	.84	.54
1915	.94	.69	1923	.88	.60
1916	1.01	.67	1924	.88	.62
1917	.96	.70	1925	.89	.64
1918	.91	.62	1926	.93	.67
1919	.88	.56	1927	.93	.67
1920	.84	.52			

[1] Comité Central des Houillères de France. Rapport présenté à l'assemblée générale ordinaire du 23 Mars 1928. Paris, 1928, p. 20.

INDUSTRIAL RELATIONS AND LABOR CONDITIONS

Coal-Mining Conditions in Colorado: Report of State Industrial Commission

A STRIKE involving a large number of the coal mines of Colorado occurred in the latter part of 1927 and continued for several weeks. The strike was originated and conducted by the Industrial Workers of the World. The Industrial Commission of Colorado made an investigation covering not only the strike situation but also the general working conditions prevailing in the coal mines of Colorado. The report of the commission was issued in mimeograph form, under date of March 20, 1928. That portion of the report which deals with the findings and opinions of the commission is reproduced below:

Report of Industrial Commission

THE people of Colorado have a right to ask what is wrong with the coal industry in this State; why did a large proportion of the coal miners accept the leadership of the Industrial Workers of the World? The answer, according to the evidence, is as follows:

First. Lack of an organization of their choice among the miners. The miners believed they had many grievances; the Industrial Workers of the World organizers were there promising anything and everything; the miners, through the lack of something better, followed their leadership.

Second. Intimidation by some of the superintendents and mine bosses.

Third. Dissatisfaction with the two cuts in wages in 1925.

Fourth. The prevailing opinion among the miners that they were not receiving correct weights for the coal mined.

Fifth. The interference of some of the superintendents and mine officials in the election of checkweighmen.

Sixth. Lack of understanding as to pay for dead work, waiting for material such as props, ties, and rails, bailing out water, shoveling coal three or four times in order to load cars, etc.

Seventh. Bad air and charges that the State mining law has not been complied with in regard to crosscuts in a number of the mines.

Eighth. Lost time waiting for tools, going into the mine, and waiting for man trip or cage going out of the mine.

The evidence presented to the commission in all of these hearings indicates there was much dissatisfaction on the part of the miners employed on a contract or tonnage basis because rails, timbers, and other materials were not delivered at the working places within a

reasonable time after the same had been ordered. Many of the witnesses complained that they lost much time taking up rails in old working places and waiting for timbers and other supplies. More complaints were made about these conditions than about any other condition presented to the commission during our hearings. It is evident that the spirit and intent of this section of the law has received very little consideration on the part of many of the employers.

Collective bargaining.—Labor is entitled to an adequate wage and the employer to a fair return on his investment. Labor and capital are necessary for the success of any kind of an industrial enterprise. One is as necessary as the other. They should work in harmony if labor is to receive an adequate wage and the employer is to receive a fair return on the investment. To secure these ends it would seem that some system of collective bargaining should be used. Experience has shown that it is not to the best interests of the employees to leave their welfare exclusively in the hands of the employer. While it is true that many of the employers protect the interests of their employees, there are others who do not. The only safe and sure protection for the employee consists of his ability to bargain collectively.

To the employer, superintendent, or boss whose word has always been law to his employees it may seem none of the employees' business as to what manner he shall conduct his business affairs.

Employers have associations or employers' unions to which they belong and where they talk over matters of common interest and at times act together in a common cause. It seems to us that it is necessary that they should act together. We believe that their employees are entitled to the same rights and privileges.

Labor organizations are as much the product of modern industrial life as the corporation. There was a time when the individual workman could bargain with his employer on something like equality. Industrial development has reached a point where it is impossible in many cases for the employee to deal as an individual with his employer. In some cases the employer is a corporation with large amounts of invested capital and thousands of employees. Under these conditions it is impossible for the individual workman to bargain on an equal basis. In such a case it is no bargain at all. The individual workman can accept the conditions named by the employer or look for other employment. Very little freedom of contract can exist between a man who has nothing but his labor to sell and the employer who can do without the labor of any particular individual. Freedom of contract under such conditions is little more than an idle dream because of the self-evident inequality.

The right of the miners to bargain collectively should not be denied or abridged by any employer. It is one of their rights and the one principle that will settle many industrial controversies. There should be no opposition on the part of the employers to this principle. It seems to us it is one of the very best and safest instruments for the attainment of industrial peace and justice.

It is the opinion of the commission that the miners would not have answered the call of the Industrial Workers of the World if there had been some organized system of collective bargaining in force in all the coal mines of this State on October 18, 1927.

Intimidation.—There was some evidence presented to the commission that would indicate intimidation on the part of some of the mine officials. Some of the miners testified that when they entered a complaint about working conditions of any kind they were told to quit if they did not like it.

This is a wrong attitude for an official to take. A reasonable complaint should receive the attention of the management and if found upon investigation to be true should be corrected. However, some of the mine officials testified that in many of the mines the same men have been employed for many years and men were never discharged except for good cause.

Checkweighman.—A large amount of evidence was presented to the commission concerning the employment of checkweighmen. Section 103 of the Colorado coal mining law provides:

SECTION 103. Hereafter at each coal mine, at the option of the majority of the miners working therein, there shall be employed one or more checkweighmen, whose wages shall be paid by the miners therein employed; said checkweighmen shall run a coal check and shall deduct a sufficient and equal amount from each ton of coal weighed to guarantee him the wages agreed upon between said checkweighman and said miners. The checkweighman shall be paid by the owner in the same manner and at the same rate per ton as other employees running coal checks. The duties of such checkweighman shall be to see that all coal mined in the mine at which he is employed is correctly weighed and accredited, and for that purpose every such aforesaid owner shall give to such checkweighman access to all scales and weights used for that purpose and to all books wherein the weights of the coal mined by the miners of said mine are recorded. The owner shall provide a convenient and suitable office on the tipple for weighing coal, which said office shall be kept in a comfortable and sanitary condition.

From the evidence submitted by the employers it appears that a large majority of the employers have no objection to the employment of a checkweighman. A large number of the miners' witnesses complained about weights and expressed a desire for a checkweighman. Many of these men testified they were afraid they would be discharged if they demanded a checkweighman be placed on the tipple.

One of the commissioners, one man representing the employers, and one man representing the employees, checked the weights of 1,859 cars of coal which had been weighed before a checkweighman had been elected. These cars had a total weight of 6,694,600 pounds, or an average of 3,602 pounds per car. Nine hundred and fifty-six cars of coal from the same mine, weighed by a checkweighman, showed a total weight of 3,463,000 pounds, or an average of 3,622 pounds per car. This check on a total of 2,815 cars showed a difference of only 20 pounds per car.

We desire to call attention to the following cases where the management objected to the election of a checkweighman:

One employer objected to the election of a man for this position because the man elected was not an employee of the company at the time of his election. This employer would not allow the man elected to go on the tipple. The employer then proceeded to call another meeting of the miners, took charge of the meeting, and elected another man. It would seem that the men were afraid to object.

We desire to call attention to the fact that under the provisions of section 103 miners have a lawful right to make their own selection and are entitled to elect anyone they desire. If the men are willing to pay the wages of a man for this place, as provided by law, they

should be allowed to elect the man of their choice without interference on the part of the management. It seems to us that is the purpose and intent of the law.

At some of the mines the present method of electing a checkweighman seems to be for the company officers to supervise the election. This should be discontinued because it is not the spirit or intention of the law for the management to interfere in these elections.

At another mine a man was elected by the employees and after the election some of the company officials circulated a petition for the miners to sign declaring the election void. Many employees will sign a petition for almost anything when such petition is presented by the superintendent, foreman, or boss who would not do so if left to use their own judgment or if the petition was presented to them by a fellow employee.

Superintendents, foremen, or other officials of the company should not be permitted to circulate petitions among the men for any purpose. It looks too much like intimidation.

The owner of one mine in El Paso County opposed and prevented the election of a checkweighman for a number of years. The employees were told that if they did not like it they could quit. This mine operated for several months without scales of any kind; the weigh boss, or some other official of the company, guessing at the weights the miners were to receive for their labor. Such methods on the part of the employer are a violation of the law and should not be permitted. The law is a farce and of no value in cases of this kind.

We wish to call attention to section 102 of the coal mining law, which reads as follows:

SECTION 102. All the coal mined shall be weighed in the car or other receptacle in which it is removed from the mine before it is screened, or before it passes over, or is dumped upon any screen or any other device which may let, or be capable of letting a portion of the coal drop through such screen or device, and the miner shall be paid for the mining of such coal, according to the weight so ascertained at such price per ton of 2,000 pounds, as may be agreed upon by and between such owner and miner or miners who mine the same, except that where coal is mined from pitching veins the miners shall be paid upon a yardage basis, except when otherwise agreed to between owner and miner.

We can find no good reason why a checkweighman should not be elected at any time the miners want to place one on the tipple. His duties should be to check the weights for the miners and he should be employed for no other purpose.

We recommend that the men elect a checkweighman by secret ballot and that the officials of the company take no part in such election. Nomination and election should be by secret ballot under conditions that insure freedom of choice and impartial count.

We also recommend that a copy of section 103 of the coal mining laws be posted at each coal mine of the State and with it a notice inviting the men to elect a checkweighman at any time they wish to do so, such notice to be posted on the company bulletin board.

Section 87 of the coal mining law provides:

SECTION 87. The miners employed in any mine may from time to time appoint two of their number to act as a committee to inspect, not oftener than once every month, mine and the machinery connected therewith and to measure the ventilating current, and they shall notify the owner and if the owner so desires, he may accompany said miners. The owner shall afford every necessary facility for making such inspection and measurement, and the committee so appointed shall

forward to the office of the chief inspector of coal mines a written report as to the result of such inspection.

In all the testimony presented to this commission by the miners we failed to find any showing where any attempt has been made to put this section of the law in force by any operator.

We recommend that the provisions of this section be enforced and that the two men elected act as a conciliation committee to represent the men. The employees can then present their complaints and grievances to such a committee, and it should be the duty of this committee to investigate any reasonable complaint and endeavor to make a settlement that will be satisfactory to both the employees and the employer.

We believe such a system would go a long way toward peace and harmony and bring about a policy of friendly cooperation between the employer and his employees.

This committee should be elected in the same manner recommended for the election of checkweighman.

Eight-hour law.— * * * From the evidence presented to the commission it appears that this law has been violated at various times in a large majority of the coal mines of this State, both by the employer and the employee. Many machine men, pick miners, and the men working on a tonnage basis violate this statute when the demand for coal is greatest. They seem anxious to work overtime, make a greater tonnage, and thereby receive greater earnings. Many of these men work from two to eight hours overtime in violation of this statute. Both the employers and the employees are to blame for the violation of the law.

We find very few men employed underground by the day do work or are required to work over eight hours per day. It is the duty of the employer to enforce this law. It should not be violated except "in cases of emergency where life or property is in imminent danger."

The employees should not disobey a law that was placed upon the statute books at the request of the miners of Colorado.

The commission recommends that some arrangements be made to prevent tonnage men and all other underground men working overtime in violation of the provisions of the eight-hour law.

We desire to call attention to section 4174 [providing penalties]. The penalty provided in this section should be enforced against either employer or employee for violation of this law. This statute is one of the laws of Colorado, and it is the duty of both employer and employee to obey its provisions as long as it remains upon the statute books of this State.

Company stores.—Some little complaint was made against the company store. From the evidence presented we found very few, if any, of the coal companies require their employees to trade at the company store. In practically all of the coal mines the employees are allowed to purchase their supplies wherever they prefer.

Bathhouses.—Bathhouses should be located at every mine. The employees pay extra for the use of the bathhouse, but the employer and the employee should cooperate in keeping the same in a clean and sanitary condition.

Boarding house.—We are pleased to say that as a rule we have found the company boarding houses conducted as well as can be expected for the prices paid.

Supplies.—We found the prices charged by the employers for blacksmith, lamps, powder, and all other supplies to be fair.

Wage scale.—We recommend that a complete copy of the wage scale be posted upon the bulletin board of every mine of this State. The scale should give the price for dead work, bailing out water, etc., and should be complete in every way. It seems to us this would prevent much misunderstanding between the men and their employers.

Illiteracy as a Cause of Unemployment

IN THE face of the ever-increasing mechanization of industry the illiterate laborer's opportunities for employment are being rapidly eliminated. Discussing this situation in the official organ of the Manufacturers' Association of Connecticut, Connecticut Industry, of April, 1928, Winthrop Talbot,[1] consultant in industrial relations, declares that it seems imperative that the unskilled be trained so that they can be used with and about machines.

He reports that in Connecticut there are 35,000 wholly illiterate men 21 years of age or over who are unable to write their names or read a word in their own language. He suggests that it would be cheaper and better for the community to teach them to read English as a preliminary to making them useful in industry rather than to support them and their dependents.

The New York State Department of Labor reports furnish illuminating data on the employment of common labor. Since August, 1922, a monthly record has been maintained of the number of common laborers applying per 100 jobs offered in 1,650 representative New York factories employing 450,000 workers. Such records show that from August, 1922, to September, 1923, the number of jobs exceeded the number of applicants. In the following 12 months there were 150 men per 100 jobs; 170 in January, 1925; 182 in January, 1926; 370 in January, 1927; and 427 in January, 1928.

These figures are for manufacturing establishments and do not include building and other trades, in which the unemployment ratio is even higher.

Because of antiquated methods of dealing with unemployment and the lack of adequate reliable statistics on the subject, the kind of unemployment and the cause of its occurrence have not been definitely determined. And yet it is most important to have accurate information on these two points in order to formulate and establish proper and permanent relief measures.

The author looks upon the speeding up of civic programs of building and road making and the hastening of certain other improvements under contract for the purpose of furnishing employment as "temporary palliatives," and says, "there seems to be a general consensus of opinion that unemployment is far more general among

[1] An article by the same author dealing especially with the cost of illiteracy to industry was reviewed in the May, 1928, issue of the Labor Review (p. 47).

unskilled workers such as common labor and casual labor and untrained clerical help."

It is inferred by the writer that this situation is largely the result of new mass production methods which substitute machines for manual labor. Examples of such substitution are the recent wider use of steam shovels, clamshell buckets, cement mixers and pourers, mechanical elevators, and cranes in excavating and building construction. Among the man-power eliminators in road building, the winch truck, the crane truck, the tractor, the scraper, pavers, and rollers are cited. The rotary V-shaped plows and "combinations" have displaced casual laborers for snow removal, and the mechanical elevator accomplishes as much as 50 shovelers, since it fills a 10-yard truck in two and one-half minutes. The mechanical ditch digger has reduced the demand for hand pick and shovel work in the laying of gas, water, and sewer pipes. In factories straight-line production with conveyer belts, overhead conveyers, trucks, and trailers has enormously reduced the need for laborers to handle material. On the southern levees a gasoline truck will do the work of a dozen men and two dozen mules. "In the last six years 2,500,000 trucks have been manufactured and truck registrations have increased from 1,118,520 in 1921 to 2,764,222 in 1926 and to approximately 3,500,000 at present."

Program of Lectures on Work of New York Department of Labor

AN ACCOUNT was given in the May Labor Review (p. 52) of the course of lectures on the work of the New York State Department of Labor to be given by Commissioner James A. Hamilton and his associates at five prominent universities of the State during the summer sessions of this year. The purpose of these lectures is not only to describe the work of the department of labor but to point out the significance of its work to the economic life of the State and to the welfare of its citizens.

There is given below a full list of the lectures, including names of lecturers and the arrangements made as regards places and dates.

SCHEDULE OF LECTURES BY OFFICIALS OF NEW YORK STATE INDUSTRIAL COMMISSION

Lecturer	Subject	University of Rochester	Syracuse University	College of the City of New York	New York University	Columbia University, Havemeyer Hall
James A. Hamilton, industrial commissioner.	History, organization, function, and aims of Labor Department.	July 2	July 3	July 10	July 10	July 11
E. B. Patton, director, bureau of statistics and information.	Official statistics and their service for business.	July 9	July 10	July 12	July 12	July 13
Raphael Lewey, M. D., chief medical examiner.	Industrial medicine and surgery.	July 10	July 11	July 17	July 17	July 16
Leland E. Cofer, M. D., director of industrial hygiene.	Industrial hygiene—Preventive medicine in industry.	July 11	July 12	July 19	July 19	July 18
Frances Perkins, chairman, State industrial board.	Women and children in industry.	July 16	July 17	July 24	July 24	July 20
L. W. Hatch, member State industrial board.	Functions of the industrial board.	July 17	July 18	July 26	July 26	July 23
James L. Gernon, director, bureau of inspection.	The inspection bureau and its meaning to industry.	July 18	July 19	July 31	July 31	July 25
James E. Donahoe, director bureau of workmen's compensation.	Workmen's compensation.	July 23	July 24	Aug. 2	Aug. 1	July 27
Nelle Swartz, director, bureau of women in industry.	The relation of women in industry to the accident ratio.	July 24	July 25	Aug. 7	Aug. 2	July 30
Richard A. Flinn, chief, division of employment.	Fitting the young worker to the job.	July 25	July 26	Aug. 9	Aug. 7	Aug. 1
Alexander A. Tausky, deputy attorney general assigned to the labor department.	Legal aspects of labor problems.	July 30	July 31	Aug. 14	Aug. 8	Aug. 3
A. J. Portenar, chief mediator.	Preventing and settling industrial disputes.	July 31	Aug. 1	Aug. 16	Aug. 9	.....
M. H. Christopherson, director of service, State insurance fund.	Prevention of industrial accidents.	Aug. 1	Aug. 2	Aug. 21	Aug. 14	.....
May R. Mayers, M. D., bureau of industrial hygiene.	Clothes and diet a factor in production.	Aug. 2	Aug. 3	Aug. 23	Aug. 15	.....
Examination period.....	.....	Aug. 2	Aug. 3	Aug. 28	Aug. 16	.....

A Survey of Texas Lumber Manufacturing Industry

AN INVESTIGATION into the economic and social conditions of the workers in the sawmills of eastern Texas was made toward the close of 1927 by the department of labor of that State. The following data are taken from the report of this survey, which is published in the February 1, 1928, issue of the Industrial Bulletin issued by the Texas Bureau of Labor Statistics. The 4,083 employees in the 16 camps inspected included 100 office workers, 580 skilled mechanics, and 3,403 unskilled laborers.

A 10-hour day is the rule for all classes of workers in the milling districts. The average daily wage for office employees is $6.55; for skilled mechanics, $5.40; and for unskilled laborers, $2.59. For the year closing September 30, 1927, the average earnings of office employees were $2,185; of skilled mechanics, $1,618.41; and of unskilled laborers, $720.44.

Exclusive of heads of families, there were 145 other members of the families reported as gainfully employed, their average wage per day being $2.40. Three companies reported having their working force insured by group insurance at a nominal cost to the employees.

Married employees are furnished physician and hospital service at an average cost of $1.50 per month and single men at $1 per month.

The 825 families visited in the course of the survey included 3,610 persons, of whom 1,689 were adults and 1,921 were children (985 boys and 936 girls). All persons under 21 years of age (the maximum school age) were classified as children. The boys of school age numbered 551; the girls, 527.

Only 108 families reported owning their own homes. The number of families living in rented houses was shown to be 781. The average number of rooms in each home, owned and rented, is four. All houses are of wooden material, boxed or frame. The average value of homes owned by workers is $850. The average monthly rental of homes rented is $7.45. Eleven families reported owning homes in other towns but renting the house in which they were living at the time. Of the families living in rented houses 669 rented from the companies.

Savings were reported by only 61 families, and these, including equity in homes, averaged $525.

Generally speaking, the homes or living quarters which the mills provide for the workers do not adequately meet the needs of a normal family. The sanitation is poor. Only 312 have electric lights and 510 running water; and no adequate sewer facilities were found in any of the camps.

The figures compiled on school attendance disclose that only 929 of the 1,078 children of school age were at school for any length of time, which is taken as an indication that 149 children of school age had not been enrolled in school at all in the period investigated. Of the 221 children who were reported as leaving school before they completed the high-school grades 139 were boys and 82 were girls, the average age of such boys and girls being 16 years.

WOMEN IN INDUSTRY

Working Hours of Women in Maryland, 1927

IN 4,936 Maryland establishments inspected in 1927 there were 61,365 women (over 16) employed, of whom 36,227 were in manufacturing establishments, 19,012 in mercantile establishments, and 6,126 in mechanical establishments.

The distribution of these women according to the character of the employing establishments and hours of work is shown in the following table, compiled from the thirty-sixth annual report of the commissioner of labor and statistics of Maryland, 1927:

WORKING HOURS OF WOMEN IN 4,936 MARYLAND ESTABLISHMENTS, 1927

Working hours	Number of women (over 16) employed in—			Total
	Manufacturing establishments	Mercantile establishments	Mechanical establishments	
Baltimore City (3,652 establishments)				
Under 8 hours	3,176	8,323	1,580	13,079
8 and under 9 hours	15,523	7,491	1,782	24,796
9 to 10 hours	9,384	998	1,518	11,900
Total	28,083	16,812	4,880	49,775
Counties (1,284 establishments)				
Under 8 hours	1,046	827	242	2,115
8 and under 9 hours	2,285	1,043	318	3,646
9 to 10 hours	4,813	330	686	5,829
Total	8,144	2,200	1,246	11,590
Grand total	36,227	19,012	6,126	61,365

Woman Workers in Japan

THE Central Vocational Bureau of the Japanese Ministry of Home Affairs is planning to call a conference of the four sectional vocational bureaus of the Kingdom for the reform of the methods of employing industrial and professional women. This official decision, according to the Trans-Pacific (Tokyo) of March 31, 1928, has been reached because of the new and difficult problems confronting such bureaus through the increasing numbers of women entering industry and the professions.

Among the outstanding evils to be combated is the reckless employment agent who makes exorbitant charges for obtaining factory jobs

for women. Such an agent ordinarily calls in person at homes in the rural sections and tries to induce the farmers' daughters to become factory operatives, "holding out many lucrative propositions." Sometimes he even offers money in advance to clinch the contract. The victims find that they must toil many months to get out of debt to him.

The number of women who applied to public employment offices for jobs in 1920 was 5,600; in 1924, 82,000; in 1925, 100,000.

The statement below shows the number of woman applicants in different lines of work registered at the public employment offices of Japan in 1927:

Industrial and mining	16, 208
Civil engineering	297
Commercial	6, 807
Agricultural	137
Marine products	5
Transport and communications	1, 188
Indoor employment	47, 382
Miscellaneous	21, 294
Others	738
Total	94, 056

CHILD LABOR

Working Children Under 16 Years of Age in Pennsylvania

UNDER the Pennsylvania law no child under 14 may receive a work permit or certificate, no child under 16 may be legally employed without such a certificate, and all 14 and 15 year old children who have been duly certificated to leave full-time school to go to work must be enrolled in continuation schools and must spend one day of each working week in attendance. There is one exception to this last provision. The establishment of continuation schools is not compulsory in districts where fewer than 20 children under 16 are employed. Therefore, a group of working children, largely engaged in agricultural work, are not in continuation schools. It is probable, however, that this group is not large, and it is considered that the number of children enrolled in the continuation schools approximates closely to the number of 14 and 15 year old children who have received work certificates.

The Pennsylvania Bureau of Women and Children has recently made a study of the children enrolled in these schools in October, 1926.[1] At that time they numbered 25,037. Comparing this figure with the school population of the same age groups, it appears that of every six 14 and 15 year old children in school districts where there were continuation schools one had left full-time school to become a wage earner. Practically all these children were native born, and over one-half had fathers who were born in this country. Girls formed 56 per cent of the group. The great majority, 92 per cent, were in occupations where their hours and working conditions were regulated by the child labor law, practically all of the remaining 8 per cent being in domestic service.

One of every three children in the total group was aged 14 but under 15. More than one-third had completed the eighth grade in school, but one-fourth had gone no further than the sixth grade.

The textile industry employed nearly one-third of these children. Mercantile and clothing manufacturing establishments were the industries next in importance in the number of children employed.

Every fourth child was working on a machine.

Illegal occupations were reported by 1 per cent of the children. Special investigations by the bureau of inspection verified but one-half of these reported violations.

There was a decided tendency toward a shorter work week than the maximum of 51 hours as established by law, nearly one-half of the children working 48 hours or less. The hours, as reported by 10 per cent of the children whose occupations come under the child labor law, exceeded the legal maximum of 51 hours a week. Special investigations by the bureau of inspection verified about half of these reported violations.

The daily hours, as reported by 86 per cent of the children whose occupations come under the child labor law, were within the legal maximum of 9 hours a day. Not quite one-fourth of the children reported an eight-hour day or less.

The most common lunch period was 45 minutes; 93 per cent of the girls and 81 per cent of the boys reported 45 minutes or more for lunch.

The median weekly earnings of the children were $8.56.

Of the children enrolled in continuation school 2 per cent were unemployed. "Haven't found work" and "Illness in the family" were the reasons most frequently given for unemployment.

[1] Pennsylvania. Department of Labor and Industry. Special bulletin No. 21: Fourteen and fifteen year old children in industry, prepared by Bureau of Women and Children. Harrisburg, 1927.

INDUSTRIAL ACCIDENTS AND HYGIENE

A New Test for Industrial Lead Poisoning [1]

A SIMPLE laboratory method by which absorption of lead by workers exposed to lead in its various forms may be demonstrated before actual clinical lead poisoning takes place, through the detection of immature red cells in the blood stream, is proposed by Dr. Carey P. McCord in a report just published by the Bureau of Labor Statistics. The report gives results of the examination of more than a thousand persons, some of whom were exposed to lead, while others were used as controls in checking the results of the tests, together with a technical description of the production of immature red blood cells and of the technique followed in making the blood counts, and an account of the clinical and laboratory materials utilized by Doctor McCord and his assistants.

The danger of lead poisoning is so widespread in industry and the action of lead as an intoxicant is so insidious that any method by which the early effects following lead exposure may be detected prior to any disability should be of the greatest worth wherever lead is a hazard. In the past the diagnosis of lead poisoning has generally depended upon the presence of definite and easily recognizable symptoms, as there has been lacking heretofore any suitable index of lead absorption among workers who are exposed to the hazard but who have not developed obvious manifestations of the disease. The incidence of lead poisoning, therefore, remains high notwithstanding the fact that the mode of entrance of this toxic substance into the body is well known, that the distribution of lead after absorption is well established, and that the factors influencing the absorption, deposit, and excretion of lead are fairly well understood.

The principal conclusions reached as a result of the study are in brief as follows:

The number of immature red cells in the blood which contain basophilic substance—that is, substance which is stainable by certain dyes—is increased above normal limits in various pathologic states, including lead intoxication, benzol and arsenic poisoning, certain types of anemias, at times in acute infections, and in many other conditions; but in a person exposed to lead and in the absence of other conditions presenting high basophilic red-cell counts such a condition may be accepted as indicative of lead absorption or lead poisoning.

Cases of definite lead poisoning ordinarily present basophilic red-cell counts ranging from 7,000 to 50,000 per cubic millimeter of blood, although the counts rarely may fall below 7,000 or may exceed 100,000. It is possible that very high basophilic red-cell counts—that is, in excess of 50,000—may be present without symptoms of clinical lead poisoning, but cases of poisoning are prone to develop among a group presenting such high basophilic red-cell counts.

[1] U. S. Bureau of Labor Statistics Bul. No. 460: A new test for industrial lead poisoning, by Carey P. McCord, M. D. Washington, 1928.

Workers exposed to lead who present basophilic red-cell counts in excess of 6,000 to 7,000 should be regarded, in the absence of other conditions productive of such increased counts, as potential lead-poisoning cases and as such should be subjected to treatment.

The use of this test has revealed not only an extensive absorption of lead among workers in those industries and those departments with a known lead hazard, but also among office workers, clerks, etc., in these industries who in the past have commonly been considered as unexposed. This is especially true if the lead hazard is present in the form of lead dust.

The basophilic red-cell counts do not, however, stand in any constant relation to the hemoglobin percentage, to the total red or white count, or to the late effects of lead poisoning, such as wrist drop.

Respiratory Diseases as a Cause of Industrial Disability

A STUDY [1] by the United States Public Health Service of records of disability among industrial workers shows the importance of respiratory affections as a cause of disabling sickness. The groups covered by the study include the employees of a large electric light and power company and the members of a group of industrial sick-benefit associations which report regularly to the office of industrial hygiene and sanitation of the Public Health Service. The records of the first group include all disabling sickness lasting one working-day or longer over a period of 10 years and of the second group the cases of illness lasting eight consecutive days or longer during a six-year period. In the latter group the number of men included averaged nearly 100,000 annually.

The absences on account of respiratory diseases accounted for 54 per cent of all the absences among the employees of the public utility company and for 47 per cent among the members of the benefit associations. The respiratory diseases are seen, therefore, to constitute approximately one-half of the cases whether all cases of disabling sickness are considered or only those which last for a period longer than a week. The sickness records of the electric light and power company showed, also, that the average loss of time on account of sickness amounted to 6.92 days a year per man on the pay roll and that 3.23 days, or 47 per cent of the lost time, was caused by the respiratory diseases.

Among the employees of this group, the common cold was the most frequent cause of sickness, causing 71 per cent of the total number of cases of respiratory diseases, with diseases of the pharynx and tonsils occupying second place as a cause of disability, influenza and grippe third, and bronchitis fourth. When the cases lasting more than a week are considered, however, the common cold ceases to be a principal cause of disability and is replaced by influenza and grippe, followed by diseases of the pharynx and tonsils, bronchitis, and pneumonia, in the order named.

There is marked seasonal variation in the incidence of respiratory diseases. According to the records for both groups of employees, the rate for these diseases reached its maximum in the month of February and its minimum in July, a tremendous increase taking place between September and February, with an equally marked

[1] United States Public Health Service. Public Health Reports, Mar. 16, 1928, Importance of respiratory diseases as a cause of disability among industrial workers, by Dean K. Brundage, pp. 603–610.

decline occurring during the spring. The greatest seasonal variation was shown by the common cold, which was twelve times as frequent in midwinter as in midsummer. The more serious respiratory cases did not show such a decided seasonal incidence, with the exception of influenza and grippe, the number of cases of which rise abruptly in the winter months.

The seasonal variations revealed by the two sets of data show that for the group of cases lasting longer than one week there was a tendency for the attacks of respiratory sickness beginning in the late winter and early spring to be more prolonged than those which begin earlier in the winter, from which it appears that industrial workers possess less resistance to respiratory infection at the close of winter.

There were 26 industrial sick-benefit associations reporting the number of cases for which benefits were paid during the three years ending December 31, 1926. The rate of respiratory sickness was found to vary greatly among these different establishments. Thus the incidence was only 17 cases a year per 1,000 men in the plant having the lowest rate as compared with 85 cases per thousand in the establishment having the highest rate. These differences in the incidence of the various respiratory diseases are typical of the variations in the number of cases found in different communities and localities and are evidence, it is stated in the report, that the causes of such wide variations in the frequency and severity of these diseases must be investigated and thoroughly understood before much progress can be made in their prevention and control. In view of the serious amount of disability from these diseases, it is said, that "even a small degree of success in their prevention would contribute enormously to the sum total of physical and mental energy, to the number of days that the industrial population is physically able to work, and, accordingly, to an enhanced national prosperity."

High Death Rate from Pneumonia Among Iron-Foundry Workers

THE effects of occupation in the causation of certain diseases are shown by a study,[1] now being made by the Metropolitan Life Insurance Co., of the causes of death among the white industrial policyholders of the company. The analysis, covering the years 1922 to 1924, has shown many striking differences in the distribution of deaths by causes among the occupational classes investigated, the death rate from pneumonia and other diseases of the respiratory system particularly being so much higher than the average in certain occupations that it seems there can be little doubt that the high incidence of the disease is a direct result of the occupation.

A particularly high percentage of deaths from pneumonia was found among iron workers, 15.9 per cent of all deaths among these workers being due to pneumonia, while only 7.7 per cent of the deaths among all occupied males were caused by this disease. The per-

[1] Metropolitan Life Insurance Co. Statistical Bulletin, March 1928: Iron-foundry workers show highest percentage of deaths from pneumonia.

centage of deaths from this cause in this group was also above the average at every age of the main working period of life, 15 to 64 years, while between the ages 25 to 34 it was over three times the average. The lowest relative percentage occurred in the age period 35 to 44, but even there it was 86 per cent above the average. In addition to the fact that iron workers had such a high percentage of deaths from pneumonia as compared with other occupational groups, this disease was also the principal cause of death among them although this was not the case in any other occupational group included in the study.

A death rate above the average from pneumonia was also shown by a number of other occupational groups. Fifteen of the 74 occupational classes had a higher death rate from this cause than the average of 7.7 per cent. The three distinct types of hazards which are associated with a high pneumonia death rate—dust, extreme heat, and exposure to sudden variations in temperature or to the weather—are found among these occupations, although some occupations which offer exposure to one or more of these hazards, such as cutters and grinders, brass-foundry workers, and pottery workers, had a low death rate from all causes as well as from pneumonia. Their low percentages are believed to be due, however, to chance variation.

The following table shows the number and per cent of deaths from pneumonia among 15 occupational groups for ages 15 and over:

PERCENTAGE OF DEATHS DUE TO PNEUMONIA AMONG WHITE MALE INDUSTRIAL POLICYHOLDERS, 15 YEARS AND OLDER, IN SPECIFIED OCCUPATIONS, 1922 TO 1924

Occupation or industry	Deaths		Per cent of deaths from pneumonia
	All causes	Pneumonia	
All occupations combined	105,467	8,138	7.7
Iron and steel molders and foundry workers	1,234	196	15.9
Cordage and hemp mill operatives	79	9	11.4
Polishers, iron and steel products	105	12	11.4
Coal miners (underground)	1,960	241	12.3
Iron and steel mill workers	1,587	167	10.5
Rubber factory operatives	439	45	10.3
Hucksters and peddlers	932	93	10.0
Roofers	179	20	11.2
Longshoremen and stevedores	594	63	10.6
Brick, tile, and terra-cotta workers	199	18	9.0
Boiler makers	367	32	8.7
Glass workers	323	31	9.6
Laborers	10,240	934	9.1
Blacksmiths	876	75	8.6
Miners (underground, except coal)	225	20	8.9

TRAINING OF HANDICAPPED WORKERS

Employment for the Blind in Canada

THE Canadian National Institute for the Blind is at present operating concentrated industries for the blind in Halifax, Ottawa, Toronto, Winnipeg, and Vancouver, according to the Rehabilitation Review of February, 1928.

There are 160 blind workers now employed in these establishments. Furthermore, the Province of Quebec has two industrial shops in Montreal, one operated by the Montreal Association for the Blind, which employs about 20 adults, the other operated by the Nazareth Institute for the Blind, which employs about 25 adults. However, the greatest activity of the national institute is in the home-teaching and salesroom department, which employs 18 home teachers who work throughout Canada with an average of 250 students. Last year more than 12,000 individual lessons were given by these teachers. Through the institute's salesroom departments raw materials are furnished at cost.

An effort is made to induce the blind workers to dispose of their products locally, but if they wish to do so they may send their wares to the central salesroom of the institute.

The central salesrooms served over 700 individual blind persons last year, selling $50,000 of homemade products alone. The value of products turned out in the first year of the institute's existence through the industrial activities amounted to $9,000. Last year, the ninth year of its operation, this amounted to $466,000. In some cases industries, formerly heavily subsidized, proved self-supporting.

The following two innovations in the Canadian work for the blind suggest that similar experiments in other countries might be well worth trying:

1. In certain industries, particularly the white-wear industry, it was found that there were few articles on which blind women could perform the majority of operations rapidly and efficiently. As a consequence, few sales could be made, production was unsatisfactory, and the overhead charges were high. However, by a judicious combination of blind workers with workers who were not blind a whole set of samples could be produced, including garments involving 90 per cent blind labor to those on which only 10 per cent of labor was performed by the blind. The industries are progressing toward self-support, and as sales multiply a greater number of the blind can be put to work in conjunction with operatives who have sight.

2. In two Provinces, Ontario and Manitoba, blind workers have been placed in general industries. For some years the workmen's compensation boards of the various Canadian Province have endeavored to eliminate totally blind and partially blind persons from general

industry. In carrying out its own industries, however, the national institute by great care in training its workers has succeeded in holding down the accident rate. This success has encouraged the institute to enter into a special arrangement with the compensation boards of Ontario and Manitoba "whereby the national institute assumes the employer's premium responsibility on their own employees and on any blind persons placed in general industry."

Several industries are already cooperating under this plan. As the scheme develops the institute hopes that instead of creating additional concentrated industries for the blind that these workers can be placed in general industries near their homes.

HOUSING

Expenditures for Building Operations in Representative Cities, 1921 to 1927

THE total expenditure for new buildings was less in 1927 than for any year since 1923, according to permits issued in 257 cities of the United States having a population of 25,000 or over.

This fact is brought out in Table 1 below, which shows the estimated expenditure in these 257 identical cities for the years 1921 to 1927 for residential buildings, nonresidential buildings, and total new buildings, the index numbers of such estimated expenditures, the number of families provided for, the ratio of families provided for to each 10,000 of population, the index number of families provided for, and the index number of families provided for weighted by population.

TABLE 1.—ESTIMATED EXPENDITURES AND INDEX NUMBER OF EXPENDITURES FOR NEW RESIDENTIAL BUILDINGS, NONRESIDENTIAL BUILDINGS, AND TOTAL NEW BUILDINGS; ALSO FAMILIES PROVIDED FOR AND RATIO OF FAMILIES PROVIDED FOR TO EACH 10,000 OF POPULATION IN 257 IDENTICAL CITIES IN 1921 TO 1927, INCLUSIVE

Year	Residential buildings		Nonresidential buildings		Total new buildings	
	Estimated expenditure	Index number	Estimated expenditure	Index number	Estimated expenditure	Index number
1921	$937,352,739	100.0	$635,775,199	100.0	$1,573,127,938	100.0
1922	1,612,352,921	172.0	876,276,713	137.8	2,488,629,634	158.2
1923	2,000,986,900	213.5	1,070,596,718	168.4	3,071,583,618	195.3
1924	2,070,276,772	220.9	1,137,631,080	178.9	3,207,907,852	203.9
1925	2,461,546,270	262.6	1,343,880,884	211.4	3,805,427,154	241.9
1926	2,255,994,627	240.7	1,300,840,876	204.6	3,556,835,503	226.1
1927	1,906,003,260	203.3	1,231,785,870	193.7	3,137,789,130	199.5

Year	Population		Families provided for			
	As estimated by Census Bureau for specified year	Index number	Number	Index number	Ratio to each 10,000 of population	Index number weighted by population
1921	36,575,118	100.0	224,545	100.0	61.4	100.0
1922	37,511,516	102.6	377,305	168.0	100.6	163.8
1923	38,447,913	105.1	453,673	202.0	118.0	192.2
1924	39,384,311	107.7	442,919	197.3	112.5	183.2
1925	40,320,708	110.2	491,222	218.8	121.8	198.4
1926	41,257,106	112.8	462,214	205.8	112.0	182.4
1927	42,058,897	115.0	406,095	180.9	96.6	157.3

The permits issued in these 257 cities in 1921 showed an estimated expenditure for new buildings of $1,573,127,938. A peak of money expended for new building operations was reached in 1925, when the estimated expenditure was $3,805,427,154 or 141.9 per cent more than in 1921. A decrease in expenditure was shown by permits issued in 1926, and a still further decrease by those issued in 1927. Permits issued during 1927 indicate an estimated expenditure of $3,137,789,130, which is 99.5 per cent more than the 1921 expenditure, but 17.6 per cent less than the indicated expenditure for the peak year, 1925.

The expenditure for residential buildings also reached a peak in 1925, when the expenditure for this class of building was 162.6 per cent more than in 1921. In 1927 the expenditure for residential building was 103.3 per cent more than in 1921; this is 22.6 per cent below the peak reached in 1925.

The estimated expenditures for nonresidential buildings did not climb as high as for residential buildings. The peak expenditure, reached in 1925, being 111.4 per cent more than in 1921. The 1927 expenditure for nonresidential buildings was 93.7 per cent greater than in 1921, but 8.3 per cent less than 1925.

The number of families provided for by homes in new buildings was 224,545 in 1921. In 1925 there were 491,222 families provided for; this number decreased to 406,095 in 1927. That is, in 1925 homes were provided in new buildings for 118.8 per cent more families than in 1921. In 1927 the number of families provided for was 80.9 per cent greater than in 1921; this was, however, 17.3 per cent fewer than in 1925.

The population of these 257 cities was 36,575,118 in 1921, according to the estimate of the Census Bureau as of July 1 of that year, and the ratio of families provided with dwelling accommodations in new buildings was 61.4 families to each 10,000 of population. By 1925 this ratio had increased to 121.8, but in 1927 sank to 96.6.

The last column shows the index number of families provided for as weighted by the population each year. It is obtained by dividing the index number of population into the index number of families provided for. That is, after taking care of the increase in population, 98.4 per cent more families were provided with dwelling places in new buildings in 1925 than in 1921, and 57.3 per cent more in 1927 than in 1921.

Average Estimated Cost of Dwellings per Family

TABLE 2 shows the average cost each year, 1921 to 1927, of dwelling accommodations per family in each of the different kinds of dwellings for which permits were issued in 257 identical cities from which reports were received every year. The table also shows index numbers of the cost of accommodations per family in each of the different kinds of dwellings.

The costs as stated in the following table are estimated costs, stated by the builder at the time of applying for his permit to build. They apply only to the cost of the building, the cost of the land not being included. There may be a profit or loss between the cost to the builder and the cost to the later home purchaser.

TABLE 2.—AVERAGE COST OF DWELLINGS PER FAMILY IN 257 IDENTICAL CITIES, 1921 TO 1927

Year	Average cost of dwellings per family [1] in—				Index numbers of cost of dwellings per family in—			
	1 family dwellings	2 family dwellings [2]	Multifamily dwellings [3]	All classes of dwellings	1 family dwellings	2 family dwellings [2]	Multifamily dwellings [3]	All classes of dwellings
1921	$3,972	$3,762	$4,019	$3,947	100.0	100.0	100.0	100.0
1922	4,134	3,801	3,880	4,005	104.1	101.0	96.5	101.5
1923	4,203	4,159	4,001	4,127	105.8	110.6	99.6	104.6
1924	4,317	4,336	4,418	4,352	108.7	115.3	109.9	110.3
1925	4,618	4,421	4,289	4,464	116.3	117.5	106.7	113.1
1926	4,725	4,480	4,095	4,422	119.0	119.1	101.9	112.0
1927	4,830	4,368	4,170	4,449	121.6	116.1	103.8	112.7

[1] Buildings only; see text above.
[2] Includes one-family and two-family dwellings with stores combined.
[3] Includes multifamily dwellings with stores combined.

According to the costs as stated on the permits issued in these 257 cities in 1921, the average expenditure for a one-family house that year was $3,972. There has been an increase in the estimated expenditure for this type of dwelling each year over the preceding year since that date. In 1927 the average expenditure for one-family residences was $4,830, which is 21.6 per cent more than the average expenditure in 1921.

The average expenditure for two-family dwellings also climbed steadily until a peak was reached in 1926. The per family expenditure for this kind of dwelling decreased, however, in 1927. In 1921 there was an average expenditure of $3,762 per family for two-family dwellings. By 1926 this average cost had increased to $4,480 where it was 19.1 per cent higher than in 1921. The average expenditure decreased to $4,368 in 1927, which was 16.1 per cent above the average cost of 1921.

The average per family expenditure for apartment houses has shown no steady trend. The average per family cost was $4,019 in 1921. In 1922 a low point of $3,880 was reached, then an increase for the next two years, a peak for the seven years of $4,418 being reached in 1924, two more years of declining expenditures in 1925 and 1926 and a small upturn in 1927. The average per family expenditure for dwelling units in apartment houses stood at $4,170 in 1927, which was only 3.8 per cent above the 1921 cost.

The above figures show the change from year to year in the amount expended per housing unit. The figures must not, however, be interpreted as showing the change in the cost of building a house each year on identical plans and specifications. Plans and specifications may change from year to year and cheaper or costlier houses built. The figures show only what was spent on the buildings constructed.

The Bureau of Labor Statistics collects monthly the wholesale prices of building material and from such figures computes index numbers. Retail prices as paid by builders are not available, but it is believed that the trend of retail prices follows closely the trend of wholesale prices.

The bureau also each year collects and compiles union wage rates in the building trades in the principal cities of the country. Building trades are highly organized in many cities, while in others more or less building labor is nonunion. To a considerable extent, however, nonunion rates are understood to move up and down in a parallel with union wages. The movement in union rates in the building trades may, therefore, be accepted as roughly showing the trend in the cost of building labor. Two series of index numbers are given in Table 3. Here it is seen that in the seven-year period building material was highest in 1923 and lowest in 1927, while union wage rates were lowest in 1922 and highest in 1927. Building material was 1.7 per cent lower in 1927 than in 1921, while building trade wage rates were 28.5 per cent higher in 1927 than in 1921.

TABLE 3.—INDEX NUMBERS OF WHOLESALE PRICES OF BUILDING MATERIAL AND OF UNION WAGE RATES IN THE BUILDING TRADES

Year	Index numbers for—	
	Wholesale prices of building material	Union wage rates per hour in building trades
1921	100.0	100.0
1922	102.2	93.4
1923	114.5	103.6
1924	106.1	112.2
1925	106.7	116.3
1926	105.0	124.0
1927	98.3	128.5

Trend Toward Apartment House Living in American Cities, 1927

BUILDING permits issued in cities of the United States having a population of 25,000 or over during the year 1927 clearly show that the proportion of families housed in multifamily dwellings is still increasing. A multifamily dwelling is one designed to accommodate three or more families. The term is equivalent to the less definite term "apartment house" or "tenement house."

Records from 257 identical cities from 1921 to 1927 are shown below in Table 1. In 1921 only 24.4 per cent of the families housed in new buildings were accommodated in multifamily dwellings compared with 58.3 per cent housed in one-family dwellings. By 1926 the percentage housed in multifamily dwellings had risen to 45.4 and that housed in one-family dwellings had fallen to 40.7. Permits issued for new buildings during 1927 reveal another decrease in the percentage houses in one-family dwellings and a corresponding increase in those housed in apartment houses. Only 38.3 per cent of the families provided for in new buildings were housed in one-family dwellings, according to permits issued in these 257 cities during 1927, compared with 48.3 per cent housed in apartment houses. Two-family dwellings housed 13.4 per cent of the families provided for in 1927, a decrease as compared with the six preceding years.

TABLE 1.—PER CENT OF FAMILIES PROVIDED FOR IN THE DIFFERENT KINDS OF DWELLINGS IN 257 IDENTICAL CITIES, 1921 TO 1927, INCLUSIVE

Year	Number of families provided for in all classes of dwellings	Per cent of families provided for in—		
		1-family dwellings	2-family dwellings [1]	Multifamily dwellings [2]
1921	224,545	58.3	17.3	24.4
1922	377,305	47.5	21.3	31.2
1923	453,673	45.8	21.2	33.0
1924	442,919	47.6	21.5	30.9
1925	491,222	46.0	17.5	36.4
1926	462,214	40.7	13.9	45.4
1927	406,095	38.3	13.4	48.3

[1] Includes 1-family and 2-family dwellings with stores combined.
[2] Includes multifamily dwellings with stores combined.

It would seem from this information that many American cities are becoming more like the cities of continental Europe in the character of their dwelling places than they have been in the past. In the larger cities of continental Europe the apartment house has long been the most prevalent kind of residential structure.

In the past most American cities have largely housed their inhabitants in single-family dwellings. However, while we have no details of the percentage of families now living in apartment houses compared with those housed in one-family dwellings, it can readily be appreciated that if new family accommodations continue to be provided in the apartments at the increasing ratios that have been shown recently it will not be a great number of years until in many cities the majority of the population will be housed in this class of structure.

This change in the character of the American home will continue seriously to affect the people of the country. There probably will be fewer home owners, which means less settled communities, for people who own their homes move less frequently than people who live in rented dwellings.

The wage earners as a class are also affected by this change in the character of building. The erection of one-family dwellings gives employment for the most part to carpenters and bricklayers. A given amount of money spent in the erection of large apartment houses will give employment to fewer carpenters if not to fewer bricklayers. Further, the erection of apartment houses gives employment to many trades seldom if ever used in the building of one-family dwellings. Among these are structural-iron workers, concrete workers, marble and stone cutters, terra cotta workers, etc.

Comparison of Conditions in Cities of Over 500,000

THE proportion of families housed in apartment houses is much greater in the large cities than in the 257 cities as a whole. In the 14 cities of the United States which have a population of 500,000 or over only 25.8 per cent of the families housed in new buildings in 1927 were cared for in one-family dwellings, while 60.8 per cent were housed in apartment houses.

In 1921 only 34.0 per cent of new housing units were in apartment houses, while 44.2 per cent were in one-family dwellings. In 1926 there were 281,172 families provided for in these 14 cities and 58.0 were housed in apartment houses. Thus, it will be seen that the percentage of families housed in apartment houses was 3 points higher in 1927 than in 1926. The total number of families housed, however, fell to 236,113 as compared with 281,172 families in 1926.

While the percentage of families housed in apartment houses was greater in 1927 than in 1926 in the 14 cities taken as a whole, an increase did not occur in each city. Six cities showed a decrease in the percentage of families housed in apartment houses and eight an increase.

The largest increase in the percentage of families housed in apartment houses was shown in Milwaukee, where in 1926 only 19.5 per cent of the families provided for that year were housed in apartment houses, while in 1927 this percentage had increased to 42.4 per cent. This was not due to any slackening of residential building in Milwaukee, for 4,252 families were provided for in 1927 compared with 3,629 in 1926.

In Los Angeles practically the same number of families were provided for in 1927 as in 1926, and the percentage housed in apartment houses increased from 39.8 per cent in 1926 to 51.8 per cent in 1927. Boston, Buffalo, and Chicago also provided for a much larger percentage of its families housed during 1927 in apartment houses than in 1926.

In contrast, Pittsburgh and Washington both showed fair gains in the percentage of families housed in one-family dwellings in 1927 as compared with 1926 and a corresponding loss in the percentage housed in apartment houses. In Washington, however, this gain may be accounted for by the fact that residential building as a whole

slumped greatly during 1927 as compared with 1926. In 1926 new homes were provided for 7,911 families, and of this number 43.3 per cent were accommodated in one-family dwellings and 56.3 per cent in apartment houses. In 1927 the percentage of families housed in apartment houses fell to 52.2 and those housed in one-family dwellings rose to 47.3. In 1927, however, dwelling accommodations were provided for only 3,938 families.

Baltimore continues to be the leading single-family dwelling city in the country. In 1926 this type of residence provided for 92.4 per cent of the new housing units, and in 1927 there was a still further increase in single residences to 94.4 per cent.

Figures are available for 1922 to 1925 in earlier publications but are omitted to economize space.

TABLE 2.—PER CENT OF FAMILIES PROVIDED FOR BY THE DIFFERENT TYPES OF DWELLINGS IN CITIES HAVING A POPULATION OF 500,000 OR OVER IN 1921, 1926, AND 1927

City, State, and year	Total number of families provided for	Per cent of families provided for in—		
		1-family dwellings	2-family dwellings [1]	Multi-family dwellings [2]
Baltimore, Md.:				
1921	2,176	85.0	4.5	10.5
1926	5,135	92.4	0.7	6.8
1927	3,546	94.4	0.2	5.4
Boston, Mass.:				
1921	878	15.5	30.5	54.0
1926	3,882	16.2	41.4	42.6
1927	5,316	10.3	32.2	57.5
Buffalo, N. Y.:				
1921	2,405	51.6	48.0	0.4
1926	3,286	47.5	33.0	19.5
1927	3,373	34.2	36.7	29.1
Chicago, Ill.:				
1921	12,252	37.9	17.6	44.6
1926	41,416	17.6	13.1	69.3
1927	41,201	13.6	10.2	76.2
Cleveland, Ohio:				
1921	4,084	35.5	40.5	24.0
1926	5,406	36.2	35.0	28.9
1927	3,631	43.9	30.7	25.5
Detroit, Mich.:				
1921	6,743	46.9	17.9	35.2
1926	26,421	39.6	25.4	35.0
1927	15,614	35.9	26.6	37.5
Los Angeles, Calif.:				
1921	19,572	68.0	16.9	15.2
1926	20,017	50.0	10.3	39.8
1927	20,801	39.5	8.7	51.8
Milwaukee, Wis.:				
1921	2,212	44.9	38.2	16.9
1926	3,629	50.4	30.1	19.5
1927	4,252	30.9	26.7	42.4
New York City, N.Y.:				
1921	51,360	31.6	24.2	44.2
1926	133,126	16.2	12.2	71.6
1927	105,519	15.9	13.3	70.9
Brooklyn—				
1921	16,636	24.1	44.0	31.9
1926	45,663	12.9	15.2	71.9
1927	33,172	11.6	17.5	71.0
Bronx—				
1921	14,037	11.7	11.9	76.4
1926	42,309	3.3	8.2	88.5
1927	30,025	4.0	8.5	87.5
New York City, N. Y.—Continued.				
Queens—				
1921	13,256	60.0	24.4	15.6
1926	31,431	41.2	17.8	41.0
1927	31,205	33.4	17.1	49.5
Manhattan—				
1921	4,837	0.7	3.7	95.5
1926	11,910	0.1	0.1	99.9
1927	9,502	[3]	[3]	99.9
Richmond—				
1921	2,594	100.0	------	------
1926	1,813	71.7	14.5	13.8
1927	1,615	77.9	20.6	1.5
Philadelphia, Pa.:				
1921	2,406	93.3	------	6.7
1926	11,603	74.4	4.7	20.9
1927	12,197	71.2	3.3	25.5
Pittsburgh, Pa.:				
1921	1,335	59.3	26.8	13.9
1926	2,781	68.0	7.7	24.3
1927	2,588	73.8	7.6	18.7
St. Louis, Mo.:				
1921	2,072	49.0	24.1	26.8
1926	8,020	23.7	17.8	58.4
1927	5,463	29.1	16.8	54.1
San Francisco, Calif.:				
1921	2,683	37.6	17.0	45.4
1926	8,539	39.8	6.9	53.3
1927	8,674	31.1	9.5	59.3
Washington, D. C.:				
1921	2,195	75.4	------	24.6
1926	7,911	43.3	0.4	56.3
1927	3,938	47.3	0.5	52.2
Total (14 cities):				
1921	112,373	44.2	21.7	34.0
1926	281,172	28.2	13.8	58.0
1927	236,113	25.8	13.4	60.8

[1] Includes 1-family and 2-family dwellings with stores combined.
[2] Includes multi-family dwellings with stores combined.
[3] Less than one-tenth of 1 per cent.

Comparisons of Conditions in Cities under 500,000

IN TABLE 3 are shown cities having a population of 25,000 and under 500,000 which provided dwelling accommodations for 200 or more families in either 1925 or 1926. The table shows figures for 1921, 1926, and 1927 where data are available for these three years. When the information is not available for 1921 it is shown for the earliest year for which such data were collected. A few of the smaller cities, which have reached a population of 25,000 since 1920, are shown for 1926 and 1927 only.

That the apartment-house idea has spread rapidly to the suburban cities is illustrated by the fact that Highland Park, a town on the outskirts of Detroit, provided for 97.0 per cent of its new families in apartment houses in 1926 and 97.8 per cent in 1927. This city had an estimated population in July, 1927, of 81,700. Evanston and Oak Park, which are located on the outskirts of Chicago, provided for 65.1 per cent and 69.5 per cent, respectively, in apartment houses in 1926 and for 70.5 per cent and 77.0 per cent in apartment houses in 1927. White Plains, N. Y., provided for 66.8 per cent of its new family units in apartment houses in 1926 and for 73.7 per cent in this class of building in 1927. Mount Vernon, N. Y., during 1926 made provision for 88.5 per cent of the families provided for in apartment houses. In 1927 the percentage fell to 83.7.

Also smaller cities not near big cities in some cases are building quite a number of apartment houses. Allentown, Pa., which in 1926 provided for only 5.8 per cent of the families provided for that year in apartment houses, in 1927 provided for 23.1 per cent in these multifamily structures. The percentage increased from 11.6 per cent in 1926 to 23.0 per cent in 1927 in Charleston, W. Va., and from 10.2 per cent to 28.5 per cent in Asheville, N. C.

The smaller and medium sized cities of the Middle West and the South are as a rule builders of one-family residences, while the New England cities build a much larger percentage of two-family dwellings than the other sections of the country.

TABLE 3.—PER CENT OF FAMILIES PROVIDED FOR BY THE DIFFERENT KINDS OF DWELLINGS IN CITIES HAVING A POPULATION OF FROM 25,000 TO 500,000

City, State, and year	Total number of families provided for	Per cent of families provided for in—			City, State, and year	Total number of families provided for	Per cent of families provided for in—		
		1-family dwellings	2-family dwellings [1]	Multi-family dwellings [2]			1-family dwellings	2-family dwellings [1]	Multi-family dwellings [2]
Akron, Ohio:					Allentown, Pa.:				
1921	234	100.0	------	------	1921	102	90.2	2.0	7.8
1926	1,968	95.5	------	4.5	1926	814	93.2	1.0	5.8
1927	2,521	83.9	3.4	12.7	1927	681	74.9	1.9	23.1
Alameda, Calif:					Altoona, Pa.:				
1921	152	88.2	11.8	------	1921	91	93.4	6.6	------
1926	322	86.0	3.7	10.3	1926	316	79.4	5.1	15.5
1927	239	81.2	5.4	13.4	1927	282	92.6	.4	7.1
Albany, N. Y.:					Amsterdam, N. Y.:				
1921	302	59.3	39.7	1.0	1921	70	71.4	28.6	------
1926	808	44.8	26.4	28.8	1926	90	40.0	60.0	------
1927	558	48.9	44.6	6.5	1927	67	41.8	58.2	------

[1] Includes 1-family and 2-family dwellings with stores combined.
[2] Includes multi-family dwellings with stores combined.

TABLE 3.—PER CENT OF FAMILIES PROVIDED FOR BY THE DIFFERENT KINDS OF DWELLINGS IN CITIES HAVING A POPULATION OF FROM 25,000 TO 500,000—Contd.

City, State, and year	Total number of families provided for	Per cent of families provided for in—		
		1-family dwellings	2-family dwellings	Multi-family dwellings
Anderson, Ind.:				
1921	37	100.0	------	------
1926	329	81.2	3.0	15.8
1927	456	72.4	1.5	26.1
Asheville, N. C.:				
1921	374	97.1	2.1	.8
1926	979	89.4	.4	10.2
1927	449	70.4	1.1	28.5
Atlanta, Ga.:				
1921	1,614	78.1	3.3	18.6
1926	2,173	55.9	22.3	21.9
1927	2,563	54.1	20.6	25.3
Atlantic City, N. J.:				
1921	366	51.9	27.9	20.2
1926	363	17.9	13.2	68.9
1927	248	25.8	33.9	40.3
Aurora, Ill.:				
1921	126	100.0	------	------
1926	526	96.8	1.7	1.5
1927	418	85.7	1.9	12.4
Battle Creek, Mich.:				
1921	127	92.1	1.6	6.3
1926	266	89.5	3.0	7.5
1927	268	91.8	5.2	3.0
Bayonne, N. J.:				
1921	274	56.9	28.1	15.0
1926	772	3.0	26.8	70.2
1927	344	2.3	39.5	58.1
Bellingham, Wash.:				
1926	382	77.7	------	22.3
1927	348	90.8	------	9.2
Berkeley, Calif.:				
1921	706	77.6	1.7	20.7
1926	1,434	63.2	14.2	22.6
1927	867	65.6	8.1	26.3
Bethlehem, Pa.:				
1921	82	96.3	3.7	------
1926	229	47.2	35.8	17.0
1927	230	35.7	46.1	18.3
Binghamton, N. Y.:				
1921	327	55.7	30.6	13.8
1926	379	34.6	26.9	38.5
1927	310	31.6	32.3	36.1
Birmingham, Ala.:				
1921	1,659	93.7	.5	5.7
1926	3,319	83.0	1.0	15.9
1927	3,019	78.2	1.3	20.4
Bridgeport, Conn.:				
1921	404	35.6	32.7	31.7
1926	328	42.1	32.9	25.0
1927	497	41.6	31.4	27.0
Brookline, Mass.:				
1921	118	22.0	54.2	23.7
1926	259	28.6	40.9	30.5
1927	472	22.0	28.0	50.0
Cambridge, Mass.:				
1921	43	7.0	93.0	------
1926	688	5.4	30.8	63.8
1927	636	5.5	33.7	60.9
Camden, N. J.:				
1921	145	100.0	------	------
1926	673	89.3	7.1	3.6
1927	559	85.3	5.2	9.5
Canton, Ohio:				
1921	403	86.1	1.0	12.9
1926	702	94.9	1.1	4.0
1927	512	90.0	2.2	7.8
Cedar Rapids, Iowa:				
1921	331	96.7	1.2	2.1
1926	170	97.6	.6	1.8
1927	145	100.0	------	------
Central Falls, R. I.:				
1926	230	0.9	49.6	49.6
1927	74	4.1	41.9	54.1
Charleston, W. Va.:				
1921	712	77.7	6.0	16.4
1926	225	76.0	12.4	11.6
1927	269	73.2	3.7	23.0
Charlotte, N. C.:				
1921	322	93.2	3.1	3.7
1926	738	68.0	3.3	28.7
1927	1,052	48.1	13.3	38.6
Chattanooga, Tenn.:				
1921	226	65.9	5.8	28.3
1926	902	56.8	28.5	14.7
1927	596	56.9	8.7	34.4
Chester, Pa.:				
1921	47	91.5	8.5	------
1926	301	88.0	------	12.0
1927	361	82.3	9.4	8.3
Chicopee, Mass.:				
1921	238	42.0	27.7	30.3
1926	247	45.3	38.1	16.6
1927	110	65.5	34.5	------
Cicero, Ill.:				
1921	453	57.8	40.8	1.3
1926	591	34.9	31.3	33.8
1927	559	26.3	27.0	46.7
Cincinnati, Ohio:				
1921	1,161	92.9	1.3	5.8
1926	2,530	58.4	19.3	22.3
1927	3,212	52.3	18.0	29.7
Clifton, N. J.:				
1921	540	39.8	58.2	2.0
1926	578	50.2	28.7	21.1
1927	567	58.9	23.8	17.3
Colorado Springs, Colo.:				
1921	116	100.0	------	------
1926	124	100.0	------	------
1927	67	100.0	------	------
Columbus, Ga.:				
1921	88	68.2	------	31.8
1926	226	92.0	8.0	------
1927	325	92.6	------	7.4
Columbus, Ohio:				
1921	1,317	65.8	31.7	2.5
1926	3,192	62.3	33.6	4.2
1927	2,430	60.5	19.7	19.8
Council Bluffs, Iowa:				
1921	423	84.2	6.4	9.5
1926	227	81.1	7.9	11.0
1927	136	74.3	2.9	22.8
Covington, Ky.:				
1921	198	95.5	2.5	2.0
1926	379	90.0	8.2	1.8
1927	346	81.5	13.9	4.6
Cranston, R. I.:				
1921	154	72.7	27.3	------
1926	437	78.3	18.5	3.2
1927	452	79.2	18.8	2.0
Dallas, Tex.:				
1921	2,846	80.8	5.6	13.6
1926	3,104	50.3	16.1	33.6
1927	986	67.1	27.0	5.9
Davenport, Iowa:				
1921	192	77.1	4.2	18.7
1926	109	100.0	------	------
1927	125	95.2	1.6	3.2
Dayton, Ohio:				
1921	546	96.0	2.2	1.8
1926	813	59.9	21.9	18.2
1927	1,201	43.8	37.3	18.9

TABLE 3.—PER CENT OF FAMILIES PROVIDED FOR BY THE DIFFERENT KINDS OF DWELLINGS IN CITIES HAVING A POPULATION OF FROM 25,000 TO 500,000—Contd.

City, State, and year	Total number of families provided for	Per cent of families provided for in—		
		1-family dwellings	2-family dwellings	Multi-family dwellings
Decatur, Ill.:				
1921	335	82.7	13.7	3.6
1926	568	98.1	------	1.9
1927	613	96.1	------	3.9
Denver, Colo.:				
1921	1,624	87.8	4.8	7.4
1926	2,530	56.9	4.6	38.5
1927	1,847	72.4	3.2	24.4
Des Moines, Iowa:				
1921	758	87.1	7.1	5.8
1926	502	90.4	------	9.6
1927	360	86.7	2.2	11.1
Duluth, Minn.:				
1921	637	96.4	1.7	1.9
1926	489	95.3	2.2	2.5
1927	303	95.0	2.0	3.0
Durham, N. C.:				
1926	422	75.8	11.8	12.3
1927	508	81.1	9.1	9.8
East Chicago, Ind.:				
1921	168	57.1	31.0	11.9
1926	443	34.1	43.8	22.1
1927	406	40.9	32.5	26.6
East Cleveland, Ohio:				
1921	472	13.1	39.8	47.0
1926	332	5.4	7.8	86.7
1927	258	4.7	9.3	86.0
East Orange, N J..				
1921	376	26.6	38.6	34.8
1926	1,140	14.9	10.2	74.9
1927	2,140	4.2	6.8	89.0
East Providence, R. I.:				
1926	247	74.5	24.3	1.2
1927	249	79.9	17.7	2.4
East St. Louis, Ill.:				
1921	260	93.8	------	6.2
1926	708	60.9	16.5	22.6
1927	585	66.8	12.3	20.9
Elgin, Ill.:				
1921	67	52.2	20.9	26.9
1926	348	83.9	.6	15.5
1927	262	93.5	2.3	4.2
Elizabeth, N. J.:				
1921	514	28.0	66.4	5.6
1926	1,751	17.4	31.1	51.5
1927	1,650	12.4	13.4	74.2
Erie, Pa.:				
1921	518	62.5	37.5	------
1926	547	76.8	22.7	.5
1927	444	74.5	24.5	.9
Evanston, Ill.:				
1921	415	74.0	5.8	20.2
1926	1,271	25.6	9.3	65.1
1927	1,423	22.6	6.9	70.5
Evansville, Ind.:				
1921	509	84.3	2.4	13.4
1926	615	97.9	2.1	------
1927	420	93.8	4.8	1.4
Everett, Mass.:				
1921	15	46.7	53.3	------
1926	425	10.8	73.9	15.3
1927	440	13.9	69.1	17.0
Fall River, Mass.:				
1921	141	47.5	22.7	29.8
1926	232	48.7	37.1	14.2
1927	251	54.6	29.5	15.8
Fitchburg, Mass.:				
1921	119	51.3	38.7	10.1
1926	147	63.9	25.9	10.2
1927	67	77.6	17.9	4.5
Flint, Mich.:				
1921	348	61.8	33.0	5.2
1926	2,171	93.7	1.6	4.7
1927	3,559	92.2	4.9	2.9
Fort Wayne, Ind.:				
1921	586	81.4	14.2	4.4
1926	972	98.9	0.3	0.8
1927	485	98.4	1.6	------
Fort Worth, Tex.:				
1921	909	96.7	------	3.3
1926	1,923	89.1	1.9	9.0
1927	3,160	55.5	22.0	22.5
Galveston, Tex.:				
1921	103	96.1	------	3.9
1926	52	53.8	------	46.2
1927	571	96.7	------	3.3
Gary, Ind.:				
1921	494	59.1	0.4	40.5
1926	2,024	61.8	13.4	24.9
1927	1,675	32.8	29.9	37.3
Grand Rapids, Mich.:				
1921	630	94.9	2.5	2.5
1926	1,955	93.7	5.7	0.7
1927	1,709	95.2	3.3	1.4
Hamilton, Ohio:				
1921	192	100.0	------	------
1926	453	100.0	------	------
1927	362	100.0	------	------
Hammond, Ind.:				
1921	288	87.8	12.2	------
1926	905	77.1	16.1	6.7
1927	1,141	60.5	6.0	33.6
Hamtramck, Mich.:				
1921	276	53.6	39.5	6.9
1926	205	57.1	24.9	18.0
1927	70	35.7	58.6	5.7
Harrisburg, Pa.:				
1921	179	48.6	44.7	6.7
1926	501	77.8	2.4	19.8
1927	319	98.7	1.3	------
Hartford, Conn.:				
1921	717	7.8	39.9	52.3
1926	2,676	6.8	17.9	75.3
1927	1,270	11.0	21.7	67.2
Hazelton, Pa.:				
1921	38	31.6	31.6	36.8
1926	200	33.0	61.0	6.0
1927	126	33.3	66.7	------
Highland Park, Mich.:				
1921	250	13.2	15.2	71.6
1926	564	1.2	1.8	97.0
1927	366	0.5	1.6	97.8
Holyoke, Mass.:				
1921	99	53.5	46.5	------
1926	197	33.5	22.3	44.2
1927	275	14.2	11.6	74.2
Houston, Tex.:				
1921	2,572	88.9	3.4	7.7
1926	3,815	64.2	11.4	24.4
1927	4,536	59.9	20.3	19.8
Huntington, W. Va.:				
1921	777	95.2	1.4	3.3
1926	337	75.7	13.4	11.0
1927	194	69.6	7.7	22.7
Indianapolis, Ind.:				
1921	2,565	56.1	21.4	22.5
1926	2,424	63.8	21.2	15.0
1927	2,400	58.5	19.1	22.4
Irvington, N. J.:				
1921	389	38.8	39.3	21.9
1926	1,379	35.5	37.7	26.8
1927	2,562	4.5	23.1	72.4

TABLE 3.—PER CENT OF FAMILIES PROVIDED FOR BY THE DIFFERENT KINDS OF DWELLINGS IN CITIES HAVING A POPULATION OF FROM 25,000 TO 500,000—Contd.

City, State, and year	Total number of families provided for	Per cent of families provided for in—		
		1-family dwellings	2-family dwellings	Multi-family dwellings
Jackson, Mich.:				
1921	108	87.0	3.7	9.3
1926	286	94.4	2.1	3.5
1927	206	87.4	12.6	------
Jacksonville, Fla.:				
1921	747	75.8	9.9	14.3
1926	2,373	69.9	17.2	12.9
1927	2,098	59.5	25.5	15.1
amestown, N. Y.:				
1922	161	94.4	3.7	1.9
1926	252	71.8	14.3	13.9
1927	225	77.8	8.9	13.3
Jersey City, N. J.:				
1921	970	4.4	46.3	49.3
1926	2,601	1.8	27.3	70.9
1927	1,287	1.9	25.8	72.3
Johnstown, Pa.:				
1921	593	46.4	40.1	13.5
1926	213	77.9	15.0	7.0
1927	128	72.7	24.2	3.1
Kansas City, Kans.:				
1921	395	100.0	------	------
1926	736	88.3	1.6	10.1
1927	387	100.0	------	------
Kansas City, Mo.:				
1921	2,578	70.1	1.7	28.2
1926	3,728	51.7	4.6	43.7
1927	3,104	33.1	2.3	64.6
Kearney, N. J.:				
1921	205	52.7	35.6	11.7
1926	541	29.0	37.0	34.0
1927	696	31.5	35.3	33.2
Kenosha, Wis.:				
1921	128	82.8	14.1	3.1
1926	174	41.4	56.3	2.3
1927	303	77.9	14.5	7.6
Knoxville, Tenn.:				
1921	489	98.8	1.2	------
1926	641	95.8	1.7	2.5
1927	818	83.9	0.9	15.2
Lakewood, Ohio:				
1921	877	26.3	72.3	1.4
1926	586	23.9	33.4	42.7
1927	582	22.0	18.9	59.1
Lancaster, Pa.:				
1921	73	76.7	19.2	4.1
1926	204	79.4	20.6	------
1927	247	97.6	2.4	------
Lansing, Mich.:				
1921	492	93.7	3.9	2.4
1926	542	89.1	7.6	3.3
1927	420	87.1	1.9	11.0
Lawrence, Mass.:				
1921	307	16.3	63.2	20.5
1926	141	17.0	22.7	60.3
1927	43	27.9	27.9	44.2
Lexington, Ky.:				
1921	127	100.0	------	------
1926	164	100.0	------	------
1927	160	100.0	------	------
Lima, Ohio:				
1921	155	67.7	32.3	------
1926	69	65.2	2.9	31.9
1927	35	91.4	------	8.6
Lincoln, Nebr.:				
1921	241	97.5	------	2.5
1926	378	94.7	------	5.3
1927	388	80.7	------	19.3
Little Rock, Ark.:				
1921	749	96.0	1.3	2.7
1926	772	79.0	------	20.9
1927	514	83.9	0.4	15.8
Long Beach, Calif.:				
1921	3,882	33.2	7.3	59.5
1926	978	67.2	9.3	23.5
1927	1,479	57.6	10.6	31.8
Lorain, Ohio:				
1921	146	87.7	6.8	5.5
1926	317	65.6	17.4	17.0
1927	237	99.6	0.4	------
Louisville, Ky.:				
1921	677	88.9	------	11.1
1926	2,581	68.7	17.6	13.7
1927	1,574	70.0	7.5	22.5
Lowell, Mass.:				
1921	259	66.4	24.3	9.3
1926	145	74.5	23.4	2.1
1927	79	92.4	7.6	------
Lynn, Mass.:				
1921	140	57.1	12.9	30.0
1926	608	33.4	21.7	44.9
1927	528	24.4	22.0	53.6
McKeesport, Pa.:				
1921	127	89.0	11.0	------
1926	274	93.8	6.2	------
1927	246	90.7	4.1	5.3
Macon, Ga.:				
1921	162	95.1	------	4.9
1926	258	96.9	------	3.1
1927	352	89.2	0.6	10.2
Madison, Wis.:				
1921	283	73.5	12.7	13.8
1926	465	89.7	8.2	2.2
1927	489	79.8	3.9	16.4
Malden, Mass.:				
1921	94	40.4	27.7	31.9
1926	419	30.5	68.5	1.0
1927	415	36.9	55.9	7.2
Manchester, N. H.:				
1921	210	74.8	12.4	12.9
1926	213	73.7	19.2	7.0
1927	165	81.8	14.5	3.6
Mansfield, Ohio:				
1921	72	100.0	------	------
1926	254	76.8	13.8	9.4
1927	157	96.2	------	3.8
Medford, Mass.:				
1921	256	46.1	48.0	5.9
1926	868	36.4	59.0	4.6
1927	628	53.7	42.8	3.5
Memphis, Tenn.:				
1921	1,245	75.3	2.4	22.2
1926	2,066	51.6	22.5	25.9
1927	1,865	47.1	17.9	35.0
Meriden, Conn.::				
1921	71	26.7	43.7	29.6
1926	201	66.7	22.9	10.4
1927	211	82.0	5.2	12.8
Miami, Fla.:				
1922	959	85.9	------	14.1
1926	3,902	65.4	7.2	27.4
1927	698	83.2	5.7	11.0
Minneapolis, Minn.:				
1921	3,574	75.9	5.2	18.9
1926	2,760	75.9	7.9	16.2
1927	2,189	65.2	11.8	23.0
Montclair, N. J.:				
1921	276	65.9	9.4	24.7
1926	422	61.1	21.1	17.8
1927	334	51.8	32.6	15.6
Mount Vernon, N. Y.:				
1921	246	66.3	16.3	17.4
1926	3,346	6.2	5.3	88.5
1927	2,211	10.9	5.4	83.7

TABLE 3.—PER CENT OF FAMILIES PROVIDED FOR BY THE DIFFERENT KINDS OF DWELLINGS IN CITIES HAVING A POPULATION OF FROM 25,000 TO 500,000—Contd.

City, State, and year	Total number of families provided for	Per cent of families provided for in—		
		1-family dwellings	2-family dwellings	Multi-family dwellings
Muncie, Ind.:				
1921	64	75.0	12.5	12.5
1926	270	99.3	0.7	------
1927	317	94.6	------	5.4
Nashville, Tenn.:				
1921	470	89.8	------	10.2
1926	674	88.3	2.7	9.0
1927	654	82.7	1.5	15.7
Newark, N. J.:				
1921	1,393	19.1	49.1	31.8
1926	3,060	13.7	34.2	52.1
1927	5,144	3.5	16.2	80.3
New Bedford, Mass.:				
1921	522	42.5	52.9	4.6
1926	135	61.5	34.1	4.4
1927	151	76.8	21.2	2.0
New Britain, Conn.:				
1921	215	20.0	38.1	41.9
1926	410	33.9	42.9	23.2
1927	537	28.7	30.2	41.2
New Brunswick, N. J.:				
1921	129	25.6	71.3	3.1
1926	244	46.7	33.6	19.7
1927	195	36.9	46.2	16.9
New Castle, Pa.:				
1926	227	90.3	7.0	2.6
1927	182	80.2	19.8	------
New Haven, Conn.:				
1921	444	21.2	40.1	38.7
1926	1,458	12.8	7.7	79.5
1927	497	24.3	7.2	68.4
New Orleans, La.:				
1921	2,335	41.8	47.2	11.0
1926	2,038	24.7	56.2	19.1
1927	2,077	24.6	64.7	10.8
New Rochelle, N. Y.:				
1921	247	74.9	17.8	7.3
1926	672	40.9	9.4	49.7
1927	1,049	26.1	5.2	68.6
Newton, Mass.:				
1921	249	83.5	15.3	1.2
1926	692	58.4	41.6	------
1927	734	68.4	31.6	------
Niagara Falls, N. Y.:				
1921	286	56.3	37.1	6.6
1926	550	43.5	42.5	14.0
1927	397	68.3	26.4	5.3
Norfolk, Va.:				
1921	419	69.2	17.2	13.6
1926	437	72.3	7.6	20.1
1927	496	63.9	2.0	34.1
Norristown, Pa.:				
1921	31	83.9	------	16.1
1926	89	89.9	2.2	7.9
1927	66	84.8	15.2	------
Norwalk, Conn.:				
1921	72	83.3	16.7	------
1926	263	76.4	21.3	2.3
1927	285	77.5	10.5	11.9
Oakland, Calif.:				
1921	2,681	77.9	4.3	17.8
1926	4,519	66.4	6.4	27.2
1927	2,694	57.1	4.1	38.8
Oak Park, Ill.:				
1921	720	70.3	4.7	25.0
1926	744	29.7	0.8	69.5
1927	918	22.7	0.3	77.0
Ogden, Utah.:				
1921	477	91.2	------	8.8
1926	245	82.4	3.3	14.3
1927	200	89.5	------	10.5
Oklahoma City, Okla.:				
1921	1,724	83.8	2.2	13.9
1926	1,173	71.9	15.4	12.7
1927	1,752	66.4	15.1	18.4
Omaha, Nebr.:				
1921	1,298	76.1	0.6	23.3
1926	794	92.7	5.8	1.5
1927	477	70.9	2.9	26.2
Orange, N. J.:				
1921	55	25.5	52.7	21.8
1926	304	24.0	17.8	58.2
1927	722	6.8	6.4	86.8
Oshkosh, Wis.:				
1921	64	64.1	17.2	18.8
1926	168	97.0	1.2	1.8
1927	162	100.0	------	------
Pasadena, Calif.:				
1921	1,262	85.9	2.2	11.9
1926	839	80.0	4.4	15.6
1927	790	57.8	5.3	36.8
Passaic, N. J.:				
1921	426	16.4	60.1	23.5
1926	354	13.0	37.0	50.0
1927	467	11.6	15.0	73.4
Paterson, N. J.:				
1921	587	39.2	54.5	6.3
1926	762	24.1	57.3	18.5
1927	1,167	19.2	19.6	61.2
Pawtucket, R. I.:				
1921	277	45.8	32.5	21.7
1926	700	29.3	58.6	12.1
1927	581	46.3	47.8	5.8
Peoria, Ill.:				
1921	300	82.0	12.7	5.3
1926	362	91.2	1.9	6.9
1927	349	93.1	1.7	5.2
Phoenix, Ariz.:				
1921	407	73.9	------	26.1
1926	531	68.4	26.0	5.6
1927	614	66.0	26.7	7.3
Pittsfield, Mass.:				
1921	43	95.3	4.7	------
1926	77	57.1	37.7	5.2
1927	118	61.0	29.7	9.3
Plainfield, N. J.:				
1921	135	100.0	------	------
1926	627	39.9	29.8	30.3
1927	507	49.3	8.9	41.8
Pontiac, Mich.:				
1921	60	96.7	3.3	------
1926	888	68.7	3.4	27.9
1927	1,069	55.2	12.0	32.8
Port Arthur, Tex.:				
1926	203	100.0	------	------
1927	508	100.0	------	------
Portland, Me.:				
1921	207	78.3	.5	21.3
1926	186	77.4	7.5	15.1
1927	216	68.1	3.7	28.2
Portland, Oreg.:				
1921	3,136	91.4	2.6	6.1
1926	5,125	62.0	4.4	33.7
1927	3,166	71.0	3.2	25.9
Portsmouth, Ohio:				
1921	113	91.2	.9	8.0
1926	257	91.0	4.7	4.3
1927	224	95.1	3.6	1.3
Poughkeepsie, N. Y.:				
1921	60	28.3	50.0	21.7
1926	351	14.8	15.1	70.1
1927	87	41.4	25.3	33.3

TABLE 3.—PER CENT OF FAMILIES PROVIDED FOR BY THE DIFFERENT KINDS OF DWELLINGS IN CITIES HAVING A POPULATION OF FROM 25,000 TO 500,000—Contd.

City, State, and year	Total number of families provided for	Per cent of families provided for in—		
		1-family dwellings	2-family dwellings	Multi-family dwellings
Providence, R. I.:				
1921	566	33.9	51.2	14.8
1926	1,205	37.0	40.2	22.7
1927	1,188	37.4	37.3	25.3
Pueblo, Calif.:				
1921	288	98.6	------	1.4
1926	270	93.7	5.2	1.1
1927	401	89.3	10.7	------
Quincy, Ill.:				
1921	20	90.0	10.0	------
1926	190	99.5	.5	------
1927	181	97.8	------	2.2
Quincy, Mass.:				
1921	404	57.2	34.4	8.4
1926	971	59.4	24.3	16.3
1927	926	52.8	16.6	30.6
Racine, Wis.:				
1921	169	77.5	15.4	7.1
1926	471	86.8	8.9	4.2
1927	609	62.7	19.0	18.2
Reading, Pa.:				
1922	333	56.2	27.0	16.8
1926	290	94.8	3.1	2.1
1927	233	82.4	3.4	14.2
Revere, Mass.:				
1921	152	69.7	30.3	------
1926	264	33.7	37.5	28.8
1927	241	50.2	38.2	11.6
Richmond, Ind.:				
1921	41	58.5	41.5	------
1926	205	100.0	------	------
1927	228	100.0	------	------
Richmond, Va.:				
1921	741	78.1	------	21.9
1926	1,224	76.1	6.2	17.7
1927	1,774	44.9	9.4	45.7
Roanoke, Va.:				
1921	351	100.0	------	------
1926	652	92.0	6.1	1.9
1927	395	90.9	------	9.1
Rochester, N. Y.:				
1921	1,319	72.1	17.1	10.8
1926	2,304	58.8	10.7	30.5
1927	2,448	50.4	8.1	41.5
Rockford, Ill.:				
1921	351	68.7	16.5	14.8
1926	880	65.8	13.9	20.3
1927	926	55.7	22.2	22.0
Sacramento, Calif.:				
1921	737	84.0	4.6	11.4
1926	1,198	86.6	4.0	9.4
1927	959	82.7	5.0	12.3
Saginaw, Mich.:				
1921	251	96.8	1.6	1.6
1926	351	100.0	------	------
1927	347	98.8	1.2	------
St. Joseph, Mo.:				
1921	7	100.0	------	------
1926	161	96.3	1.2	2.5
1927	107	100.0	------	------
St. Paul, Minn.:				
1921	2,194	78.6	4.6	16.8
1926	2,188	61.7	8.1	30.1
1927	1,148	72.0	7.0	21.0
St. Petersburg, Fla.:				
1926	2,766	52.0	20.5	27.5
1927	442	84.2	7.0	8.8
Salt Lake City, Utah:				
1921	826	90.0	3.8	6.2
1926	912	58.3	6.4	35.3
1927	850	56.1	8.0	35.9
San Antonio, Tex.:				
1921	1,718	95.5	------	4.5
1926	1,964	82.8	3.9	13.2
1927	2,171	79.6	3.7	16.7
San Diego, Calif.:				
1921	1,450	88.6	.3	11.1
1926	3,734	87.7	5.3	7.0
1927	2,613	76.8	7.6	15.6
San Jose, Calif.:				
1921	300	83.7	3.6	12.7
1926	683	85.8	3.7	10.5
1927	385	73.0	10.4	16.6
Savannah, Ga.:				
1921	347	81.0	------	19.0
1926	331	75.5	13.0	11.5
1927	401	72.6	15.0	12.5
Schenectady, N. Y.:				
1921	193	70.0	30.0	------
1926	289	77.1	20.4	2.4
1927	349	71.3	9.7	18.9
Scranton, Pa.:				
1921	75	81.3	18.7	------
1926	217	56.2	25.8	18.0
1927	280	57.1	42.9	------
Seattle, Wash.:				
1921	1,961	90.5	------	9.5
1926	5,342	62.5	------	37.5
1927	4,505	61.0	------	39.0
Sheboygan, Wis.:				
1921	90	95.6	4.4	------
1926	334	80.2	18.9	.9
1927	204	88.2	11.8	------
Shreveport, La.:				
1921	1,157	100.0	------	------
1926	597	100.0	------	------
1927	185	66.5	15.1	18.4
Sioux City, Iowa:				
1921	638	90.4	5.0	4.5
1926	359	87.2	3.3	9.5
1927	267	72.7	------	27.3
Sioux Falls, S. Dak.:				
1921	303	100.0	------	------
1926	212	94.3	5.7	------
1927	151	84.8	7.3	7.9
Somerville, Mass.:				
1921	204	5.4	75.5	19.1
1926	352	2.0	53.4	44.6
1927	399	1.0	54.1	44.9
South Bend, Ind.:				
1921	665	78.0	13.8	8.1
1926	1,036	96.8	2.7	.5
1927	540	96.3	2.6	1.1
Spokane, Wash.:				
1921	438	98.7	------	1.3
1926	662	99.1	------	.9
1927	595	85.2	.5	14.3
Springfield, Ill.:				
1921	210	76.7	6.7	16.6
1926	431	80.0	2.3	17.6
1927	354	92.7	3.1	4.2
Springfield, Mass.:				
1921	827	59.9	30.0	10.2
1926	1,329	40.8	27.5	31.7
1927	1,240	36.5	18.2	45.2
Springfield, Ohio:				
1921	253	90.9	9.1	------
1926	274	89.1	10.9	------
1927	285	84.9	15.1	------
Stamford, Conn.:				
1921	190	50.5	34.7	14.7
1926	561	36.5	22.8	40.6
1927	559	30.6	21.8	47.6

TABLE 3.—PER CENT OF FAMILIES PROVIDED FOR BY THE DIFFERENT KINDS OF DWELLINGS IN CITIES HAVING A POPULATION OF FROM 25,000 TO 500,000—Contd.

City, State, and year	Total number of families provided for	Per cent of families provided for in—		
		1-family dwellings	2-family dwellings	Multi-family dwellings
Steubenville, Ohio:				
1924	84	89.3	------	10.7
1926	210	41.9	21.0	37.1
1927	171	73.7	11.1	15.2
Stockton, Calif.:				
1921	624	66.8	------	33.2
1926	332	76.2	4.8	19.0
1927	412	70.9	2.9	26.2
Syracuse, N. Y.:				
1921	627	55.5	38.8	5.7
1926	1,251	64.7	19.4	15.8
1927	1,838	53.0	16.5	30.5
Tacoma, Wash.:				
1921	843	93.1	------	6.9
1926	1,790	80.3	------	19.7
1927	769	80.5	------	19.5
Tampa, Fla.:				
1922	422	89.3	5.2	5.5
1926	2,623	80.3	.7	19.0
1927	826	94.8	1.1	4.1
Terre Haute, Ind.:				
1921	758	100.0	------	------
1926	128	87.5	12.5	------
1927	184	98.9	1.1	------
Toledo, Ohio:				
1921	600	80.3	15.7	4.0
1926	1,545	78.9	7.2	13.9
1927	1,749	81.0	8.3	10.6
Topeka, Kans.:				
1921	188	84.0	------	16.0
1926	361	87.5	12.5	------
1927	320	87.5	------	12.5
Trenton, N. J.:				
1921	317	89.3	------	10.7
1926	437	95.9	1.4	2.7
1927	316	96.2	1.9	1.9
Tucson, Ariz.:				
1926	400	78.0	22.0	------
1927	535	54.2	7.5	38.3
Tulsa, Okla.:				
1921	1,138	77.5	5.1	17.4
1926	862	66.7	11.6	21.7
1927	1,434	68.1	13.9	18.1
Union City, N. J.:				
1921	56	33.9	14.3	51.8
1926	352	.3	9.9	89.8
1927	255	------	12.5	87.5
Utica, N. Y.:				
1921	478	43.3	56.7	------
1926	443	78.6	20.5	.9
1927	259	83.4	16.6	------
Waco, Tex.:				
1921	443	97.7	.5	1.8
1926	187	97.3	.5	2.1
1927	171	98.8	1.2	------
Waltham, Mass.:				
1921	137	92.7	4.4	2.9
1926	321	44.0	23.0	33.0
1927	285	49.1	30.5	20.4
Warren, Ohio:				
1921	171	94.7	5.3	------
1926	453	75.3	12.4	12.4
1927	321	95.3	4.7	------
Waterbury, Conn.:				
1921	271	43.2	22.9	33.9
1926	691	42.1	21.9	36.0
1927	675	54.4	20.7	24.9
Watertown, Mass.:				
1926	844	25.1	74.9	------
1927	759	14.1	85.9	------
West New York, N. J.:				
1921	269	6.3	62.5	31.2
1926	419	3.6	14.3	82.1
1927	283	8.5	3.5	88.0
Wheeling, W. Va.:				
1921	261	44.0	39.9	16.1
1926	131	72.5	10.7	16.8
1927	182	80.8	10.4	8.8
White Plains, N. Y.				
1926	1,054	29.9	3.3	66.8
1927	1,204	22.5	3.8	73.7
Wichita, Kans.:				
1921	1,336	93.2	2.8	4.0
1926	977	74.3	5.5	20.2
1927	988	77.7	4.9	17.4
Wichita Falls, Tex.:				
1926	1,537	77.9	18.5	3.6
1927	548	90.5	5.8	3.7
Wilkes-Barre, Pa.:				
1921	82	91.5	4.9	3.6
1926	322	50.0	18.3	31.7
1927	230	64.8	25.2	10.0
Wilkinsburg, Pa.:				
1926	242	76.0	18.6	5.4
1927	166	68.7	12.7	18.7
Wilmington, Del.:				
1921	66	71.2	7.6	21.2
1926	359	92.8	1.7	5.5
1927	366	83.1	.5	16.4
Winston-Salem, N. C.:				
1921	356	94.1	.6	5.3
1926	566	78.6	9.9	11.5
1927	923	74.8	2.6	22.6
Woonsocket, R. I.:				
1921	369	25.7	26.6	47.7
1926	365	18.4	36.2	45.4
1927	154	46.1	26.0	27.9
Worcester, Mass.:				
1921	715	67.0	17.8	15.2
1926	1,465	44.8	13.6	41.6
1927	795	59.0	18.6	22.4
Yonkers, N. Y.:				
1921	433	76.0	------	24.0
1926	2,706	18.0	7.7	74.3
1927	4,146	14.3	6.7	79.1
Youngstown, Ohio:				
1921	724	62.2	20.7	17.1
1926	1,089	83.2	8.6	8.2
1927	1,148	80.8	11.8	7.3

An Italian Build-Your-Own-Home Project

THE recently organized National Association for Inexpensive Dwellings (*Ente Nazionale Case Economiche*) places under the auspices of the Government of Italy, a notable project which has been increasingly successful for the past six years.

Inauguration of the Scheme

THE origin and development of the undertaking is described in a report of March 7, 1928, by Joseph Emerson Haven, United States consul at Florence, from which communication the following data are taken.

The experiment was started by Capt. Guido Venturini, of Florence, who in 1922 found that his means were insufficient, in view of the latest raise of rent by his landlord, to keep a roof over his family. As others were also suffering from high rentals resulting from the postwar shortage of houses, he brought together a group of 11 other war veterans and suggested that they combine in the purchase of a piece of cheap land in the suburbs of the city and undertake the construction of individual dwellings, doing the actual building themselves. By pooling their limited resources they were able to buy building materials at wholesale and thus affect a saving, which was increased by each member of the group contributing his leisure time to the actual labor of building the houses. The dozen members composing the original group managed to raise among themselves 802 lire,[1] of which 800 lire were used to make the first payment on the land. The material for the first group of residences to be erected was purchased with the proceeds of a loan.

Among these dozen cooperators were several who were skilled in manual trades, and with their aid 12 dwellings were finally built for 12,000 lire each. It took two years, however, to construct them, as the work was done before or after the regular working hours and on Sundays and holidays.

When completed each dwelling had two floors and a cellar and contained six rooms and a bath. Each lot had a frontage of 7½ meters[2] and was 26 meters deep. The houses occupied a ground space 7½ by 11 meters. The remaining space was for garden purposes.

When it became obvious that the experiment was proving a practical success other members of the War Veteran's Association followed suit and began to organize groups.

When the undertaking was started the professional contractors and builders of Florence were inclined to look upon the scheme indulgently, but as the other cooperating groups were constituted it was realized that the growing movement might seriously affect the local building industry. The new groups found themselves facing technicalities and other difficulties, which clearly indicated that influences were being brought to bear by the contractors to hinder a movement so inimical to their future.

[1] Lira at par=5.26 cents. Average exchange rate for 1922=4.7559 cents; for 1924, 4.358 cents.
[2] Meter=3.28 feet.

Government Recognition of the Project

DESPITE numerous efforts by the War Veterans' Association to induce the State to interest itself in the experiment, it was six years before the Government was willing to do so. It is reported that this delay was due to the fear of a request for a loan or subsidy to finance the multiplying groups of cooperative builders. As millions, which had not been repaid, had already been contributed by the Government for the erection of workers' tenements, additional requests for funds were unwelcome.

Very recently, however, the Government has taken official cognizance of the undertaking and as a result the National Association for Inexpensive Dwellings has been organized, the Prime Minister himself assuming the honorary presidency of it at his own request. The statutes of the association have been approved by royal decree.

No governmental subsidy is to be requested for the building of war veterans' homes, but in lieu thereof the following privileges will be extended to the builders of these homes:

1. The houses will be exempt from all taxes for a period of 25 years.
2. All contracts will be made on "plain" paper (exempt from the customary revenue stamps).
3. In the event of a mortgage—no tax thereon.
4. All material used in constructing these homes to be exempt from all municipal octroi [entry] taxes, and if imported into the country, exempt from customs duty.

Present Scope of the Experiment

EARLY in March, 1927, there were 200 groups of war veteran home builders organized in the Province of Florence alone; numerous groups have also been constituted in six other Provinces, and recently the Central Committees of War Veterans in 17 additional Provinces have announced that they intend to join the movement. In the Province of Florence 300 individual dwellings have been constructed and are already occupied, 100 others are built but not yet occupied, and 1,300 more are being constructed.

The headquarters of the national corporation are in Rome.

Future of the Movement

THE rapid extension of this movement throughout Italy seems assured, according to the report of the consul. He bases his conclusion not only on the present shortage of housing accommodations but because this scheme is a partial solution of the unemployment problem which is now serious in Italy and is becoming more acute.

Some especially interesting excerpts from the statutes of the association are given below:

The object is the construction of houses of the popular economic type at a minimum cost, for the exclusive use of members, the actual work of construction to be done by the personal labor of such members, united into groups, balanced in proportion and in relation to their several individual trades. The work is to be carried on during spare hours following their regular daily occupation and during the entire day on holidays. Such labor may not be performed by proxy.

ARTICLE 4. The national committee is composed as follows:

1. A president, nominated by the Minister of the Interior.

2. A commissioner general, nominated by the Minister of the Interior.
3. A representative from the Ministry of National Economy.
4. A representative from the Ministry of Public Works.
5. A representative from the Provincial Federation of War Veterans of Florence.
6. A representative of the National Fascisti Party, to be nominated by the secretary general of the party.
7. A representative of the Fascisti Contractors' Syndicate, to be nominated by the secretary general of syndicates.
8. A representative from the office of General Direction of Art Works, to be nominated by the Minister of Public Instruction.

ARTICLE 8. The labor of construction and the relative needs thereof shall be borne by the individual groups under their own administration but subject to the general regulations.

ARTICLE 29. If a member of a group is unable to give his personal services he must contribute a sum equivalent to such services, which sum will be established by the General Regulations of Discipline and Work after authorization by the provincial committee. No member may belong to more than one group.

Extract from General Regulations of Discipline and Labor

ARTICLE 10. For all members who are masons, laborers, diggers, whitewashers workers in cement, smiths, plasterers, and other artisans hours of work will be counted as those of a mason on the market. Such a valuation will be kept yearly, diminishing it or increasing it according to oscillations of the market. For members who are wagoners, chimney makers, and woodworkers, will be counted, besides their hours of work, use of wagons, of machinery, of animals, consumption of lubricating oils, gasoline, etc.

WORKMEN'S COMPENSATION

Passage of Workmen's Compensation Act for District of Columbia

BY AN act of the first session of the Seventieth Congress, approved May 17, 1928, workmen's compensation legislation was extended to cover employees in the District of Columbia. This is the third workmen's compensation act passed by Congress, the other two being for Federal employees and longshoremen. The only remaining large classes of employees to whom Congress may now extend the benefits of workmen's compensation are employees engaged in interstate commerce and the crews of vessels.

The compensation act provides that the provisions of the longshoremen and harbor workers' compensation act "shall apply in respect to the injury or death of an employee of an employer carrying on any employment in the District of Columbia, irrespective of the place where the injury or death occurs." Certain employees are excluded from the coverage of the act.

The act is analyzed below, following the method used in previous articles and reports, permitting an easy comparison with other acts as well as presenting the substance of the law in convenient form.

District of Columbia workmen's compensation act

[No. 419 Seventieth Congress]

Date of enactment.—May 17, 1928; in effect July 1, 1928.

Injuries compensated.—Accidental injury arising out of and in the course of employment, causing disability for more than one week or death, including such occupational diseases as arise naturally out of the employment, and injuries due to the willful act of third persons on account of the employment; but excluding injuries due solely to the intoxication of the injured employee, or his willful intention to injure himself or another, and injuries compensable under State law.

Industries covered.—Any employer carrying on any employment in the District of Columbia.

Persons compensated.—All employees of employers covered except (1) a master or member of a crew of any vessel; (2) railroad employees engaged in interstate or foreign commerce or commerce within the District of Columbia; (3) employees covered by the Federal employees' compensation act; (4) employees engaged in agriculture, domestic service, any employment that is casual and not in the usual course of trade, business, occupation, or profession of the employer.

Compensation for death.—(*a*) Reasonable funeral expenses, not exceeding $200

(*b*) To a widow or dependent widower alone, 35 per cent of wages, with 10 per cent additional for each child under 18; orphans or dependent grandchildren or brothers or sisters under 18 receive 15 per cent each; and dependent parents or grandparents, 25 per cent during dependency. In no case may the total payments exceed 66⅔ per cent of the wages.

(*c*) Payments to a widow or widower cease on death or remarriage or when dependence of widower ceases, with two years' compensation in one sum on remarriage. On such death or remarriage, payments to children under 18 are increased to 15 per cent each. Payments to minor dependents terminate at 18, and to parents and grandparents when dependence ceases.

(*d*) If there are no dependents, $1,000 must be paid to special funds.

No wages in excess of $37.50 per week may be considered in computing death benefits, nor may the minimum basis be less than $12, but no weekly benefit may exceed the actual wage.

Compensation for disability.—(*a*) Medical, surgical, nurse, and hospital service and treatment, including crutches and apparatus, for such period as the nature of the injury or process of recovery may require, costs to be subject to regulation by the deputy commissioner.

(*b*) For total disability, 66⅔ per cent of the wages, during its continuance; if due to second injury, employer pays only for proportionate results, balance from special fund.

(*c*) For partial disability, two-thirds of the wage loss, for not more than five years, if temporary; for specific injuries, maimings, etc., 66⅔ per cent of the wages for designated periods, subject to extension in case of prolonged healing time; lump sum for serious facial or head disfigurement; also allowance from special fund for maintenance during vocational rehabilitation.

Payments may not be more than $25 per week nor less than $8, unless wages are less, then full wages.

Periodical payments may be commuted to a lump sum in any case in which the deputy commissioner determines that it is for the best interests of the beneficiary.

No total compensation benefit under this act may exceed $7,500. (This includes funeral benefits, but not medical, etc., treatment.)

Revision of benefits.—A deputy commissioner, on his own initiative or on application of a party in interest on the ground of a change in condition, may review an order at any time during the term of an award; prior payments are not affected.

Insurance.—Insurance in an approved company or proof of adequate financial ability to meet payments is required of all employers under the act.

Security of payments.—Final awards are enforceable by proceedings in the district court having jurisdiction of the place in which the injury occurred. Payments are not assignable, are exempt from claims of creditors, and have the same preference against the assets of the employer or insurer as is allowed in case of unpaid wages, without limit as to amount.

Settlement of disputes.—By deputy commissioners, with review by Federal district courts.

Recent Workmen's Compensation Reports

New York

THE Department of Labor of the State of New York has published a special bulletin (No. 152, August, 1927) containing an analysis of closed awards of compensation for the two-year period ending June 30, 1926, of which the following table is a summary:

NUMBER OF COMPENSATED ACCIDENTS, BY CAUSE AND INDUSTRY, AND COST THEREOF, JULY 1, 1924, TO JUNE 30, 1926

Cause	Number of cases			Total weeks of disability	Total compensation
	Death or permanent total disability	Permanent partial disability	Temporary disability		
Machinery	113	8,717	15,118	591,762	$8,842,691
Hoisting and conveying apparatus	235	1,525	3,201	347,660	3,369,627
Vehicles	508	3,102	12,067	763,107	7,495,851
Explosions, electricity, fire, etc	268	731	6,341	345,500	3,014,742
Harmful substances	60	222	2,290	90,764	959,979
Falls of person	534	4,984	26,410	1,089,401	12,919,164
Stepping on or striking against objects	33	582	6,751	85,455	1,057,327
Falling objects	188	2,044	9,643	337,665	4,009,609
Handling objects	178	6,844	40,533	627,494	8,779,379
Hand tools	34	2,821	10,300	205,031	3,258,214
Animals	28	229	1,286	52,054	552,919
All other causes	124	1,526	6,319	229,598	2,590,700
Total	2,303	33,327	140,259	4,765,491	56,850,202

NUMBER OF COMPENSATED ACCIDENTS, BY CAUSE AND INDUSTRY, AND COST THEREOF, JULY 1, 1924, TO JUNE 30, 1926—Continued

Cause	Manufacturing	Construction	Transportation and public utilities	Trade	Clerical and personal service	Mining, agriculture, and miscellaneous	Total, all industries
Machinery	19,921	1,698	616	733	712	268	23,948
Hoisting and conveying apparatus	1,732	1,295	649	520	665	100	4,961
Vehicles	1,554	1,443	9,101	2,043	1,105	431	15,677
Explosions, electricity, fire, etc	3,480	903	1,309	330	1,206	112	7,340
Harmful substances	1,395	711	194	107	141	24	2,572
Falls of persons	9,288	9,817	4,226	3,008	5,042	547	31,928
Stepping on or striking against objects	2,805	2,118	865	762	710	106	7,366
Falling objects	4,146	4,288	1,596	865	606	374	11,875
Handling objects	20,121	9,558	8,650	4,923	3,571	732	47,555
Hand tools	5,258	3,037	1,632	1,788	1,133	307	13,155
Animals	189	38	1,001	90	111	114	1,543
All other causes	2,610	1,190	1,349	808	1,119	893	7,969
Total	72,499	36,096	31,188	15,977	16,121	4,008	175,889

Wisconsin

THE March 30, 1928, issue of Wisconsin Labor Statistics, published by the Industrial Commission of Wisconsin, contains several interesting tables showing the experience of Wisconsin during the calendar year 1927 in making increases or decreases in the amount of compensation allowed employees because of the employers' or employees' violation of safety orders.

During the year 1927, 20,473 cases were closed. In 442 of these cases employers paid compensation indemnity benefits of $276,282, which was $37,891 more than the amount of normal compensation payable. The bulletin states that—

> The liability for the 15 per cent increased compensation for injuries sustained under hazards outlawed by the safety orders is a direct obligation upon the employer and is never payable by the employer's insurance carrier unless the employer is noncollectible. The liability for 15 per cent additional compensation arises from some failure on the part of the employer and there would seem to be no good reason why such liability should be met through insurance by collecting from industry generally any sums necessary to satisfy the increased measure of compensation because of hazards existing in violation of law. The increased compensation is due as a statutory right and is to be considered as a statutory measure of compensation benefits due the employee rather than as a penalty or punitive provision against the employer for failure to measure up to the requirements fixed by safety orders.

"For willful failure to use safety devices provided by the employer or for willful failure to obey any reasonable rule adopted by the employer for the safety of the employee, or for injury resulting from intoxication, the compensation and death benefit otherwise provided is subject to reduction by 15 per cent." In the calendar year 1927 four employees received total compensation of $3,020.74, whereas they should have received $3,546.86, a difference of $526.12, because of their failure to use guards. Three employees received a total compensation of $874.54, whereas they should have received compensation amounting to $1,027.35, a difference of $152.81, because of intoxication.

The bulletin also contains tables showing the frequency of violations of different safety orders by individual employers. Out of the

total of 442 violations, 381 employers violated orders. Three hundred and forty-eight employers violated safety orders once; 18 employers violated safety orders twice; 7 employers violated safety orders three times; 4 employers violated safety orders four times; 3 employers violated safety orders five times; and 1 employer violated safety orders six times. A further explanation of these figures is given in the bulletin, as follows:

> The frequency with which a particular employer may have compensation cases involving violation of any given safety order depends in large measure upon the size of the machine-working departments of his establishment. As a matter of fact, practically all employers having increased compensation cases as often as three or more times under any one safety order have most commendable records for safety work. Most such employers enjoy large schedule rating credits for machine guarding and experience rating credits for a favorable record of actual compensation losses in relation to expected losses. Order No. 30, relating to the guarding of power presses, was violated once by 49 employers, twice by 9 employers, three times by 6 employers, four times by 3 employers, five times by 3 employers, and six times by 1 employer. A total of 118 cases out of 442 increased compensation cases involved violation of order No. 30.

Belgian Law on Occupational Diseases [1]

COMPENSATION for occupational diseases in Belgium is provided for by a law dated July 24, 1927. Compensable diseases are limited by the law to those which are the subject of an international convention which has been ratified by Belgium or to those approved by a technical committee made up of physicians, employers, and workers. The law did not specify the diseases to be covered, but according to a governmental decree [2] issued January 30, 1928, compensation will be paid for occupational poisoning from lead and its compounds, mercurial poisoning, and anthrax. The decree also lists the industries or occupations in which these substances are a hazard.

The persons covered by the law include, in addition to the ordinary workers, apprentices not working for wages, and artisans or salaried employees who by reason of their direct or indirect participation in the work are subject to the same risks as the workers in the plant, if the annual salary of such employees does not exceed 18,000 francs. The law also applies to foreign workers if their native country grants similar rights to Belgian workers employed in that country, or in case of nonreciprocity if they have resided in Belgium at least three years or intend to make Belgium their permanent residence.

Compensation is paid for death, permanent partial or total disability, and temporary disability lasting at least 15 days.

In case of death from one of these diseases a sum of 500 francs is allowed for funeral expenses and an amount equal to 25 per cent of the wages earned in the last year is paid annually to the surviving wife or husband, or in the event of the death of the latter each child under the age of 18 is entitled to a benefit amounting to 10 per cent of the annual wages, but the total must not exceed 30 per cent of the

[1] Belgium. Ministère de l'Industrie, du Travail et de la Prevoyance Sociale. Revue du Travail, August, 1927, pp. 1247-1255.
[2] Comité Central Industriel de Belgique. Bulletin, Feb. 15, 1928, pp. 194, 195.

wages. In the absence of such beneficiaries a benefit is paid to the parents of the victim or to the other heirs.

In case of total temporary incapacity for work which lasts more than 15 days the patient is entitled to a daily benefit, from the date of the incapacity, amounting to 50 per cent of the average daily wages. If the disability is or becomes permanent the temporary daily benefit is replaced by an annual allowance. In case of permanent total disability the allowance is equal to two-thirds of the average daily wages, or if there is permanent partial disability it amounts to the difference between the wages the employee is able to earn and two-thirds of his average daily wages before sickness.

An occupational disease fund is created which is under the direction of the Ministry of Labor and under the direct management of an administrative council of five, which must include at least one representative each of the employers and workers in the industries concerned. The fund is maintained by a State contribution, by a tax on the employers in the industries which present these hazards, and by special Government contributions in case there is a deficit. A technical council made up of three representatives each of the physicians', employers', and workers' groups has charge of the technical questions relating to these diseases and also renders opinions as to the amount of the fees to be paid by the different enterprises, based on the degree of hazard present.

The law provides penalties for failure on the part of employers to comply with the terms of the law or for putting any obstacle in the way of the medical inspectors.

SICKNESS INSURANCE AND BENEFITS

Sickness Insurance in Various Countries

THE insecure position of the working class in regard to sickness and employment has led to the gradual development of schemes of insurance against these contingencies in many countries. The early years of the industrial revolution were marked by a general indifference to the welfare of the workers and it was not until the middle of the nineteenth century that the first laws for the protection of workers were planned. These first cautious experiments were aimed merely at lessening to some extent the sweating of women and children and for many years no attempt was made to provide compensation in case of accident or to provide for sickness. During the third quarter of the nineteenth century employers instituted numerous welfare features such as hospitals, homes, and pension and relief funds, but these schemes covered only a small proportion of the working class.

The mutual-aid funds which started in Great Britain and spread later to the Continent embodied the workers' first attempts to provide against these risks, but the field of these organizations was also limited and the resources were too small to enable them to undertake insurance against prolonged illness or disablement. Parliaments and legislative bodies, however, during the last part of the century took an increasingly active part in the solution of problems of labor protection and the public authorities encouraged and assisted the mutual-aid movement. With this encouragement and support the voluntary insurance movement has greatly increased its scope in the past half century, but in spite of the growth of this form of insurance only a small proportion of the workers are insured thereunder. In view of the fact, therefore, that voluntary insurance has not provided general and effective protection, a system of compulsory insurance has been instituted in most of the industrial States of Europe and in a few other countries.

The International Labor Conference at its seventh session, held in 1925, passed a resolution requesting the International Labor Office to continue its work of collecting information with regard to social insurance, and studies covering both the compulsory and voluntary insurance of wage earners against sickness have accordingly been made.[1]

Compulsory Insurance

THE points covered, so far as possible, for each of the 24 countries having a compulsory sickness insurance system were: The classes and number of workers subject to the law; the nature and the

[1] International Labor Office. Studies and reports, series M, No. 6: Compulsory sickness insurance; and No. 7: Voluntary sickness insurance. Geneva, 1927.

amount of the benefits; the division of costs between the State, the employers, and the workers; total annual cost; methods of administration; annual expenditure; and the use of social insurance reserves for the improvement of public health.

The first country to make sickness insurance compulsory was Germany, where it was instituted by Bismarck for political reasons in 1883. Industrial workers were covered by the first plan and in 1885 it was extended to commerce and the following year to agriculture. Austria and Hungary introduced a system of compulsory sickness insurance for workers in industry, transport, and commerce in 1888 and 1891, while the principle of compulsory insurance was adopted by Luxemburg in 1901, Norway in 1909, Serbia in 1910, Great Britain and Russia in 1911, and Rumania in 1912. The systems in force in Estonia and Latvia are based upon the Russian law of 1911.

The European States created by the peace treaties have passed laws amending the insurance schemes they inherited. Thus Czechoslovakia in 1919, Poland in 1920, Austria in 1921, and Yugoslavia in 1922 made sickness insurance compulsory for all wage earners; Bulgaria in 1924 extended the 1918 law to cover all classes of workers; and Portugal in 1919 and Greece in 1922 also adopted the principle. In Soviet Russia a system of compulsory insurance was incorporated in the 1922 Labor Code, taking the place of the system of public assistance established in 1918. Lithuania passed a sickness insurance law in 1925, which has not yet been put into effect, and France, after several years of consideration of the question, has recently established a vast scheme of compulsory insurance against sickness, invalidity, old age, and death.

Countries outside of Europe which have adopted compulsory systems are Japan (1922) and Chile (1924), while the Governments of Australia and South Africa have appointed commissions to study schemes of compulsory social insurance, and Brazil is preparing a labor code which will include compulsory insurance against sickness.

Scope of Present Laws

The scope of compulsory sickness insurance laws is determined principally by the basis of the contract of employment; that is, the laws are intended to apply to wage earners as a class and not to other population groups. Only three countries—Chile, Portugal, and Switzerland (some of the Cantons)—have extended the insurance beyond the workers and made it compulsory for persons of small means working on their own account. As voluntary insurance for the latter class, which is a supplementary provision in many compulsory schemes, has had very little success, it seems probable, according to the report, that compulsory sickness insurance will long retain its character of working-class legislation.

The number covered by sickness insurance varies greatly between countries, the proportion of insured persons ranging from 3 to 35 per cent of the total population and from 15 to 86 per cent of the employed population. These differences are accounted for by the difference in importance of the wage-earning class in each country and by the insurance being limited to certain groups in some of the countries. The present tendency is toward the removal of restric-

tions, and in 18 countries the insurance now applies to all wage earners in industry and commerce, and restrictions based on the size of undertakings and degree of risk have, except in Japan and Estonia, altogether disappeared.

The inclusion of agricultural workers in these schemes has been slower, owing to the difficulty in administering benefits, but experience has shown that these difficulties can be overcome and as these workers are organizing into trade-unions and demanding social legislation the situation is rapidly changing. Compulsory insurance has been extended, as a result, to agricultural workers in 11 countries, in 10 of which the system has been adopted during the past 15 years. The movement is also being extended to include occupational groups, such as domestic servants and home workers, whose status is more difficult to define. The system of deducting the workers' contributions from wages has solved the difficulty presented in the case of persons who work for several employers, and this system also makes it possible to extend the protection to temporary workers and to seasonal workers.

On the other hand, there is a decided tendency to restrict the application of insurance so that nonmanual workers whose earnings exceed a certain amount shall not be included, and in certain important schemes recently proposed such a limit would be imposed even upon manual workers.

Benefits

The usefulness of compulsory insurance depends not only upon its scope but also upon the nature of the benefits. During the evolution of the system tendencies have developed toward broadening the benefits so that not only the immediate needs of the sick person unable to work will be covered but the amount of preventable sickness will be reduced. There are two ideas in regard to the amount of the sickness benefit—one that the benefit should provide for a strict minimum of existence during the period of inactivity, and the other that the sick person should be maintained at his standard of living and should therefore receive a benefit proportionate to the living standard. This variable benefit based on the standard of living of the insured person was universally adopted in continental Europe before the war and has been a feature of all the compulsory insurance laws which have been passed since that time. In several countries, too, the benefit rate is increased in cases of prolonged sickness where the resources of the patient have been exhausted, while in a growing number of countries family responsibilities are considered in deciding the benefit rate. Such family allowances are provided in the German mining insurance law and in the general insurance laws of Bulgaria, Chile, Estonia, Lithuania, and Rumania, and they are optional and may be added to the basic rate of benefit in Austria, Czechoslovakia, France (Alsace-Lorraine), Germany, Great Britain, Latvia, Poland, and Yugoslavia. The idea that restoration of the patient rather than the payment of compensation alone is desirable has resulted in the provision of medical aid and drugs, and in all the more recent laws treatment by specialists and convalescent care are also provided for. In most schemes the cost of these benefits is quite as high as the cost of cash allowances and in some cases is even greater.

Sickness insurance is also being extended to cover the worker's family, maternity benefit and medical and drug service for the entire family being included. Such service is provided in the insurance systems of Czechoslovakia, Hungary, Latvia, Norway, Poland, Rumania, Yugoslavia, Austria, Lithuania, and Portugal, while in Germany and Luxemburg insurance institutions have taken advantage on a large scale of the right to provide medical care for the families of the insured workers. As a result, tens of millions of workers' households in European countries are entitled to free medical treatment, and sickness insurance has thus become the means of carrying on a consistent health program for the masses of the population.

Division of Insurance Costs

In apportioning the costs of sickness insurance among the State, the employers, and the workers, it is much more difficult to arrive at a fair proportion than in the case of workmen's compensation, where the employer's responsibility is more clearly defined. In the case of sickness it is hardly possible to fix the degree of responsibility for each group, although it is clear that the workers, the employers, and the State are all vitally interested in the effects of the insurance. In view of the fact that these three groups all have an interest in the success of the insurance the costs are met in many cases by these groups. Soviet Russia is the only country which has not accepted the principle of the workers' contribution, and Rumania and five Swiss Cantons do not require contributions from employers. The question of participation by the State in the insurance costs is still a subject of controversy, however, and in only about half of the compulsory sickness insurance schemes does the State contribute.

In the different systems the contribution of the insured person is rarely less, and almost always equal to or greater, than half the total contribution, while the employers' contribution varies from a third to a half of the total contribution and the State's contribution varies widely both in character and amount. The State's share may take the form of a fraction of the total contribution, a specific allowance for each person insured, a share in the total cost of all the benefits, or it may cover the special benefits only, such as maternity and nursing benefits or the family allowances. With the extension of the insurance activities into the field of public health it is probable, however, that the justification for financial aid from the public treasury will receive increased recognition.

Insurance Institutions

In most countries the insurance has been organized on the basis of the existing insurance institutions: Friendly societies, trade funds, and territorial funds. This policy, which is actuated by a desire to preserve the existing institutions, has often resulted in a mixture of different types of funds, among which insured persons are distributed in widely varying proportions.

The movement in Europe, however, has been toward territorial funds and away from trade funds and friendly societies. The grouping of all the insured persons in a particular area in a single institution has various advantages. Thus in a fund in which all

kinds of trades are represented, the good and bad risks counterbalance each other, and as the membership is stable it is much less influenced by economic disturbances and unemployment crises than trade funds. Such funds are also particularly well adapted to the organization of medical benefits.

The management of the insurance institutions is, in all but two countries, either in the hands of the insured persons alone or the insured persons and employers, or the public authorities may also be represented. State management exists only in Bulgaria and to some extent in Japan, but even in these countries it is regarded as only a temporary feature.

The management of the funds by the parties concerned seems to fulfill conditions required for efficiency and to be generally satisfactory. The general practice is to give the insured persons the strongest representation, and recent legislation reveals a well-marked tendency to increase the influence of insured persons in the management of insurance funds.

In summing up the tendencies revealed by the study the following statement is made:

> Sickness insurance is endeavoring to fulfill ever more completely its task of protecting the health of the working-class family and maintaining the workers' capacity to produce, by widening the circle of insured persons, perfecting the system of benefits which perform the threefold function of relief, cure, and prevention, concentrating the means of action, and systematically organizing autonomous institutions under the control of the parties concerned.
>
> Thus, compulsory sickness insurance, as creator of security, health, well-being and productive capacity, and as instrument of education, is an element both important and necessary in the proper economic and social organization of communities.

Voluntary Insurance

IN A number of countries which have not adopted the plan of compulsory insurance against sickness, the establishment of insurance institutions by private initiative has been encouraged by the States. In these countries the laws give the mutual-aid movement a more favorable position than commercial companies and provide financial assistance from public funds. Legislation of this kind has been adopted in Italy (1886), Sweden (1891), Denmark (1892), Belgium (1894), Finland (1897), France (1898), Spain (1908), and Switzerland (1911). Voluntary insurance schemes are also found in Argentina, Australia, Canada, Great Britain, New Zealand, Union of South Africa, and Uruguay, and to a limited extent in India and Palestine.

In countries in which the societies benefit by special advantages in return for the obligations and supervision to which they are subject, the conditions under which they are approved by the State usually relate to the obligation to undertake insurance on the mutual principle, the admission of members, financial balance, auditing, and the rules for the investment of capital. The special advantages which they receive are the extension of legal capacity, exemption of certain rates and taxes, and, in many countries, the grant of public subsidies. The highest proportion of recognized funds is found in those countries in which the State contribution is a substantial one, while in countries such as Italy, where the public subsidies are small

and not paid regularly, the institutions prefer to waive recognition by the State and carry on their work under the general law.

Types of Insurance Institutions

Insurance institutions are organized either as trusts or associations and are classified, according to the rules governing membership, into open and closed funds. The former admit all persons to membership who satisfy the conditions of age, health, and income prescribed by the law or the rules of the funds and the latter restrict their membership to persons working in the same undertaking (works funds), those in the same occupation (trade funds), or those belonging to the same political party or having the same religious belief.

Works funds and trade funds are found in all countries, while political funds are particularly well developed in Belgium and the Netherlands and denominational funds are also found in these two countries. The closed funds are formed often on a combined trade and religious basis or on a combined trade and political basis. In Belgium and Finland the predominating type is the closed fund while in Denmark, France, Sweden, and Switzerland the open fund prevails and the closed funds have only a small membership. Organization of funds on a territorial basis is almost complete now in Denmark and has made much progress in Sweden and Switzerland and to a lesser extent in Belgium, Finland, France, Australia, New Zealand, and Uruguay. In Spain the number of territorial institutions has decreased, but there has been a corresponding increase in the denominational funds.

Conditions of Admission

In general, the insurance funds are free to fix the conditions of membership and they may if they wish accept members regardless of their economic situation. In Denmark and France, however, the recognized sickness-insurance funds may admit only persons whose wages or income falls below a certain fixed maximum. In the earlier funds the tendency was toward strict limitation of membership, but at the present time the regulations on admission are becoming more liberal, although for financial reasons the funds generally try to secure their members from among the younger elements of the population, among whom the risk of sickness is relatively low. In order to eliminate bad risks the voluntary insurance institutions almost uniformly exclude persons who do not reach a certain health standard, so that in practice voluntary insurance is not open to the persons who most need medical protection. In Belgium, Sweden, and Switzerland an attempt has been made toward correcting this condition, and in Denmark persons who are unable to work as a result of incurable disease must be admitted by recognized funds, and the State is responsible for the additional expenditure incurred. While from the social standpoint the system is said to have yielded excellent results, it is considered that it is essentially a system of State relief carried on through the voluntary system and that the burden to the State is heavier than is the case under a system of compulsory insurance.

Age of admission is usually within the limits of 16 years and 45 years, although in some countries in recent years there has been an effort to develop the insurance of children by setting up school-insurance funds.

In Denmark and Finland the conditions of admission create very definite legal privileges for the workers, as they alone may join the insurance funds subsidized by the State. In Denmark, also, it is usual for employers to insist that their employees belong to a recognized sickness fund, with the result that while the system is theoretically one of workers' voluntary insurance, in practice it often becomes compulsory owing to the action taken by employers.

The cost of supervision under the voluntary system is prohibitive when members leave the area in which a fund operates, and as a result in nearly all cases there is a residential clause under which persons lose their membership when they leave the area of the fund. This is one of the great disadvantages of the voluntary funds, as a person who has passed the age limit and can not satisfy the conditions of the fund in his new place of residence is thus unable to provide for the future at the very time when his need is greatest. In Switzerland the right of free transfer has to a large measure offset this disadvantage, although it has not given entire satisfaction either to the organizations or to the members.

Membership

The growth of voluntary insurance in most countries has been slow, and it is said that as a whole the results are not satisfactory except in Denmark where in 1925 over 57 per cent of the population were insured. In other countries the proportion of insured persons ranged at that time from 1 per cent in Canada to 14.3 per cent in Belgium.

Most sickness funds do not classify their members by occupation or social position so that it is not clear in many cases how large a proportion are wage earners. In Denmark wage earners constitute 81 per cent of the total number insured, in Sweden 65 per cent, and in Switzerland about 60 per cent, but in many countries comparatively few of the workers belong to the funds. The small membership is attributed mainly to the fact that at the present time a large number of workers, especially those with families, do not earn enough to pay insurance contributions. The fact that the class among whom disease and infant mortality are most serious does not benefit to any great extent by the sickness insurance is considered to be the weightiest objection to the voluntary form of insurance.

Financial Resources

The funds are supported mainly by the members' contributions. Other sources of revenue are voluntary contributions of employers, State subsidies, interest on capital, donations and legacies, and receipts from entertainments. The contributions by the States vary. In Italy and Spain the State subsidy takes the form of relief, which is granted only in exceptional circumstances, in Belgium, Denmark, France, Sweden, and Switzerland the State contributes

regularly to the insurance institutions, and in the other countries there is no State contribution.

Benefits

The benefits granted by the voluntary insurance funds include cash payments, medical and surgical care, drugs and hospital treatment, etc. The cash benefits include in addition to the daily allowances, assistance to convalescents, allowances to dependents of deceased members, nursing benefits, and funeral benefits. The daily benefits, however, quite generally afford insufficient relief, as nowhere have they been raised proportionately to the increase in the cost of living. For example, in Belgium the mutual benefit societies pay their sick members only 3 or 4 francs a day and other countries show practically the same low scale of benefits, particularly those in which the currency has most depreciated.

The tendency toward taking steps to restore the health of the sick person which has been evidenced by the compulsory insurance schemes is also evident in the voluntary schemes, although to a less marked degree. In Belgium, where voluntary sickness insurance has grown rapidly since 1920, the family medical service alone has cost more than 50,000,000 francs out of a total expenditure on benefits of 82,000,000 francs.

In summing up the results of the voluntary insurance movement it is said that in spite of the force of this movement of social solidarity it has failed to provide a satisfactory solution of the problem of workers' insecurity, its effectiveness being limited by three obstacles: Small and unstable membership, insufficient revenue and benefits, and dispersal of effort.

Invalidity Insurance in Denmark

THE reorganization of the invalidity insurance system in Denmark was provided for by a law [1] enacted July 16, 1927, effective October 1, 1927.

The law provides for insurance against invalidity until the end of their sixty-second year of all persons who are active members of sickness insurance funds, if they are of Danish nationality and are not afflicted with a serious chronic physical or mental disease. Foreigners may be admitted to the insurance if their country grants reciprocal rights to Danish residents.

Insurance is voluntary but applies in general, both for sickness and invalidity, to persons whose income does not exceed a maximum varying between 2,200 crowns and 3,500 crowns, [2] according to the locality in which they reside, and who have a certain limited amount of capital.

Insured persons are entitled to invalidity insurance when there is a two-thirds reduction in their working capacity, the estimated reduction being based on their earnings as compared with the average earnings of persons in the same age group and in the same trade. The

[1] Belgium. Ministère de l'Industrie du Travail et de la Prévoyance Sociale. Revue du Travail. February, 1928, pp. 260-269.
[2] International Labor Office. Voluntary sickness insurance. Geneva, 1927, p. 105.

insurance amounts to a maximum of 800 crowns per year in case of serious disability and 540 crowns in other cases, plus the treatment necessary to effect a cure when this is possible. By serious disability is understood a condition in which the invalid is in need of constant attention, such as in case of blindness. In case of serious disability the part paid by the insurance fund will be gradually decreased during the period from October 1, 1927, to September 30, 1929, when the maximum payment will be 540 crowns, the commune in which the insured person resides paying the balance, or 260 crowns.

When a husband and wife are both entitled to invalidity benefit this will be reduced one-fourth for each of them.

The insurance funds are maintained by contributions from the insured persons and from employers who are subject to the workmen's compensation law, and by subsidies from the State and the communes. The employees' contributions amount to 4.44 crowns for all persons insured prior to October 1, 1921, and vary for those insured after that date from 4.44 crowns to 6.84 crowns, according to the age at which the insurance is taken out between the ages of 18 and 40. The contributions for those insured after the age of 40 will be fixed by the director of the sickness insurance system.

Employers subject to insurance against industrial accidents are required to pay 4.50 crowns for each worker employed by them during the entire year. The additional resources necessary to enable the invalidity funds to meet their annual expenses and maintain a sufficient reserve will be supplied each year by the State and the communes in which the insured persons reside, the State paying three-fifths of the amount and the remainder being divided among the communes according to the number of insured persons residing in each.

A council composed of a president and five other members has general charge of the administration of the invalidity insurance. The members of the council must include 2 physicians, 2 active members of a sickness insurance fund, and 1 employer employing at least 6 workers.

If the applicant for invalidity insurance is certified by the council as being permanently incapacitated the benefit is paid from the beginning of invalidity, but if the incapacity is temporary the benefit is paid only from the expiration of the period during which sickness benefits or public assistance is given and then only as long as the degree of incapacity is at least one-third.

The provisions for cure and treatment include hospital or sanitarium care, the provision of bandages, artificial limbs, eyeglasses, etc., and reeducation. A person receiving invalidity benefit can not be required to undergo an operation which would endanger his life or his health but the council may require an insured person to enter a hospital or sanitarium when he can not receive the necessary care at home.

When a person receiving invalidity insurance has completed his sixty-second year the invalidity benefit ceases as such but is continued without reduction in the amount up to the time of his death, half the costs being borne by the State and half by the commune in which he resides.

Medical Aid Societies in Latvia

AN ACCOUNT of the "krankenkassen" or medical aid societies established by municipalities or by trade guilds in Latvia is given in a consular dispatch from McConey Werlich, American vice consul at Riga, Latvia, dated December 15, 1927.

The protection afforded by these societies covers all workers in undertakings employing three or more persons and also personal and household servants. Enrollment in a krankenkasse is required under the labor insurance law adopted December 15, 1920. The dues amount to 8 per cent of the employee's wages, 4 per cent of which is paid by the employer and 2 per cent each by the employee and by the Government. The societies were established by a law of June 23, 1912, and their civil or corporate status was established in 1917. Their activities are under the general supervision of the Latvian Krankenkassen Union and the Ministry of Welfare, but each individual society is allowed independence of action as regards contracts and membership restrictions subject to the existing laws.

Contracts are made with physicians, surgeons, and dentists for the treatment of members at officially standardized rates, and 800 of the 988 doctors in the country have such contracts. The standard basic rates per visit to doctors' offices, hospitals, or the krankenkassen stations is 1 lat (19 cents) and for visits to the patients' homes the charge is 3 lats (57 cents). These rates may vary, however, according to certain stipulations in the contracts, particularly where special treatment is given or major surgical work is done. If a patient wishes the services of a doctor who is not under contract to his particular society, the society will pay the minimum standard fee to the doctor and the patient is responsible for the remainder. The customary physicians' fees for persons who are not members of a krankenkasse are from 77 cents to $1.94 in United States currency. A doctor does not receive cash payments from members, but a receipt for the services rendered is signed by each patient and the physicians have these receipts cashed at the krankenkassen.

There are four pharmacies, three of which are in Riga, which are maintained by these societies. All pharmacies in the country, however, honor prescriptions written on an order from a krankenkasse, these orders being sent to the responsible society for collection. During 1926 the total expenditures by these societies for medicines, including bandages, surgical dressings, etc., was $338,100, an average of $2.41 per member or $1.45 per person protected by krankenkassen services. Members of the societies who require care in a hospital or a sanitarium are sent to one with which the society has a contract, the charges being paid by the society. A member is entitled to 26 consecutive weeks of hospitalization, or to 30 weeks during a 12-month period.

Members of the immediate family of an insured person who are not members of a fund are entitled to free medical and hospital care, the value of which, however, may not exceed one-third of the annual contribution of the members.

In the event of unemployment, members lose their right to the medical care provided by the funds, as this is contingent upon the regular contributions of the employers, the employees, and the

State. There is, however, in Riga a krankenkasse for persons who are by choice temporary workers, which operates on the same basis as the societies for persons regularly employed.

Maternity benefits for women who are members of a krankenkasse vary according to the financial status of the fund. The maximum allowances include medical service and full wages for 4 weeks before and 8 weeks after confinement, and in case of confinement in a hospital the hospital expenses are paid and not to exceed 25 per cent of the average wages. If the mother dies in childbirth the child is cared for in a children's hospital for a year at the expense of the fund in which the mother was insured.

A statement of the condition of the funds at the close of 1926 shows there were 43 funds with 140,440 members and 92,439 family members. The receipts during the year amounted to $2,207,863 and the disbursements to $2,144,059.

PROVISION FOR UNEMPLOYMENT

Report of Commission Concerning Unemployment in Amsterdam

THE results of the official investigation of unemployment in Amsterdam in 1926 have recently been made public.[1] While following in certain essential lines the well-known British surveys, the Amsterdam study was somewhat more extensive and its value was enhanced by the inclusion of medical examinations.

The methods and results of the inquiry and the conclusions based on its findings are here summarized.

Methods of Inquiry

THE investigation was conducted by a special commission, nominated July 2, 1926, composed of the town councilor, the director of the municipal labor exchange, the director of the municipal health service, the director of the municipal bureau for social aid, and a representative of the joint trade-union centers. The survey was carried on through the municipal labor exchange.

The commission was successful in securing the full cooperation and coresponsibility of the trade-union executives and the assistance of the daily and trade-union press. Appeal was also made for the voluntary cooperation of the unemployed.

With certain exceptions, noted below, "all wage earners of 18 years of age and over registered in the books of the municipal labor exchange and engaged in trade, industry, etc., of whom it was not known with certainty whether they were still at work and had merely registered because they desired to change their post," received during the period September 6 to 18, 1926, a questionnaire which contained the inquiries given below:

1. When and where were you born? 2. Are you married, a breadwinner, or single (without dependents)? 3. Of what persons does the family which you are supporting consist? 4. Are you organized? If so, in what union? 5. How much rent do you pay? 6. What is your present trade? How much are your average earnings per week when working in your present trade? 7. Did you do other work formerly? If so, what? 8. Since when have you been unemployed? 9. Can you give the names of your employers during the last 5 years; if so, state how long you were with each? 10. How long have you been living in Amsterdam? 11. Did you attend the elementary school and go through all the classes? 12. What further day instruction have you had? Did you go through all the classes of the school? 13. What other evening instruction have you had? For how long did you receive this instruction? 14. Do you think you could do other work besides your present trade? If so, what? And should you need some train-

[1] Netherlands (Amsterdam). Commissie van onderzoek naar den omvang en de feitelijke beteekenis der werkloosheid te Amsterdam. Rapport. Amsterdam, 1927. Typewritten copy (in English) of extract from the report of the commission of inquiry into the extent and practical significance of unemployment in Amsterdam.

ing before doing it? 15. If you are of the opinion that you will not find work again easily, what do you think are the reasons for this? 16. Are you willing, if called upon, to undergo a medical examination? 17. What special remarks would you like to make, which may be of interest for the commission or for you?

Attached to this schedule were careful and detailed explanations as to how these questions should be answered. The following unemployed were excluded from the inquiry: Persons registered in the women's domestic section of the exchange and persons who could not be regarded as actual wage earners, persons who were known to be "socially unfit," and those who were out of work on September 15 because of some labor dispute. The questionnaire was to be filed in accordance with the status of the unemployed on September 15, 1926, this date being selected "as being free as possible from seasonal influences."

The organized unemployed not registered on the labor exchange books received their schedules through union executives and the unorganized unemployed was reached through the daily and the trade-union press, in which was inserted the request that such persons should call at the labor exchange, where they would be given an inquiry form which they could fill in at once if they so wished. When thought necessary the filled-in schedules were checked by the bureau of the emergency commission, the labor exchange, and certain other municipal records.

The official of the labor exchange gave as far as possible the following data regarding each unemployed person:

(*a*) The proper classification of the trade of the individual in question.
(*b*) The degree of skill possessed by him, classified under the headings: "Normally capable," "Incapable," or "Not known."
(*c*) The possibility of his learning or adapting himself to another trade (within or outside his own branch).
(*d*) The time during which he has been known to be looking for work.
(*e*) His chance of employment: If this is small, the reasons for this fact.

Unemployed persons who reported on their schedules that they could not readily get work again because of accident, physical defects, disease, invalidity, old age, etc., were listed for medical examination by the city health service, as were also certain other persons selected from each trade who had expressed themselves as willing to have such an examination.

Results of Survey

OF THE 12,100 forms returned, 727 were thrown out as not coming within the scope of the investigation and the conclusion was reached that it was "to all intents and purposes certain that the number of unemployed persons in Amsterdam on September 15, 1926, coming into question for the purposes of the inquiry was limited to about 11,373 industrial workers of 18 years of age and over." Estimating the total wage-earning population 18 years of age and over (excluding domestic workers and public employees) as 184,205 it was found that 6.2 per cent were unemployed (7.2 per cent of the men and 1.2 per cent of the women).

When the dependents of the unemployed were included in the number directly affected by unemployment the total was found to be 34,435, or 4.76 per cent of the total inhabitants of Amsterdam, who numbered 722,794 on September 30, 1926. These figures could

not be compared with pre-war statistics for Amsterdam or with data for other cities in Holland because there was no similarly carefully verified information.

The occupations with the largest number of unemployed were the building trades, transport trades, and the group of general workers, which together constituted over 59 per cent of those out of work.

A comparison of the percentage of unemployed and the percentage of the city population in various age groups is given below:

Age group:	Total population (per cent)	Unemployed persons (per cent)
Under 30	24. 2	35. 9
Under 35	31. 9	49. 7
Under 40	38. 6	61. 6
Under 45	44. 8	70. 9
Under 50	50. 0	78. 1
Under 60	58. 1	91. 3

When, however, similar percentages were computed for individual trades the lack of uniformity in the findings indicated that other factors were involved in addition to the tremendous competition in the labor market which tends to consider workers old even at so-called middle age. "In general, the conclusion may be drawn that the number of younger men among the unemployed is comparatively too large. Inadequate vocational skill and training is probably a factor in this phenomenon."

Of the 11,373 unemployed, 7,249 (including 58 women) were married, 3,449 (including 264 women) were single without dependents, and 675 (including 40 women) were supporting dependents.

An analysis of the place of origin disclosed that 70.54 per cent of the unemployed were born in Amsterdam. Comparing this percentage with the figures on place of origin for the whole population, the conclusion may safely be drawn that residents of places outside of Amsterdam have a slightly smaller proportion of unemployment as compared with their proportional representation in the population. It was also found that 3.2 per cent of the unemployed had lived less than 12 months in Amsterdam.

In 608 of the families of the 7,249 unemployed married persons both the husband and wife worked.

The 7,249 families averaged 2.2 children living at home, from which it may be concluded, according to the report, that among the unemployed, who are recruited from the poorest groups of society, "the number of children is not much above the average."

Slightly over 43 per cent of the unemployed were organized.

The organized unemployed who were voluntarily insured against unemployment constituted 11.3 per cent of the total persons insured.

Some of the other conclusions reached are: That adequately skilled workers constitute the smallest percentage of the unemployed; that the vocational capacity of the unemployed for the trade at which they work at present is not greatly below the average; that generally speaking, the optimism of the unemployed regarding their fitness for various kinds of work exceeds that of other persons capable of judging; that among the unemployed who were then obliged to have recourse to unskilled labor, a number would have been able

to go back to their old trades (if these were revived) with or without training or could be reeducated to a trade in which craft workers were then needed.

Findings of the Medical Examination

OF THE unemployed persons given medical examination, 86.8 per cent were found fit for the trade to which they reported themselves to belong, and all but 0.2 per cent of the group were fitted for other work, although 5.4 per cent were capable of doing only very light work other than in their reported trade.

Of the 13.2 per cent of the unemployed who were found unfit for their reported trade, there were some who were able to do light work, and others very light work.

Information similar to the above was also given by industrial groups.

Recommendations

AMONG the proposals made by the commission as a result of its study were:

A. Further investigation should be made as soon as practicable "into the special circumstances of trade and industry which are the causes of the unemployment."

B. All possible measures should be taken by the authorities toward the systematic and rational development of local industry in general, for example:

1. Giving technical and economic advice on the lines of the services provided by the industrial advisory experts and by the various national information offices.
2. Providing facilities or lightening the financial burdens of local trade and industry in specific cases.
3. Giving orders or financial assistance to enterprises which are in temporary difficulties, but not economically unsound.
4. Helping to form a reserve army of workers who shall be capable in every sense of the word. This can be done by promoting efficient vocational training and a practical apprentice system. The information obtained concerning the vocational training both of the unemployed and of their children point to a deficiency in this respect.

C. The following measures should be promoted by the municipality:

1. The ascertaining of the ordinary labor requirements of the different trade and industrial groups.
2. Reeducation and vocational perfecting in the crafts and trades where there is opportunity in them for more workers. The commission holds, however, that reeducation is not an ideal solution.
3. The transfer of the unemployed (especially persons without families) either to other localities in Holland or to foreign countries.
4. An improved system of employing different unemployed persons on each occasion for work in industry or trade, whenever this is practicable.
5. Regularizing employment by having certain kinds of work done in the winter months.
6. The protection of the Amsterdam labor market against outside competition.
7. Opposition to the unfair competition of workers in public services, of persons who receive pensions or of other persons having two sources of income.

D. The commission suggests primarily to national authorities the desirability of—

1. Extending the unemployment insurance system to all the unemployed.
2. When unemployment insurance has been adequately extended, as suggested in 1, the emergency benefit regulations designed to aid victims in industries particularly influenced by the slump could be eliminated.
3. Any assistance which the authorities give other than insurance benefit, should as far as practicable be adjusted to the specific needs of the individual.
4. Opportunities of employment should be created, for which suitable individuals receiving insurance benefit could be trained.
5. Separate attention by the authorities in the matter of aid to workers whose capacity is not quite at the normal level.
6. Special attention by the authorities to the problem of training and recreation for unemployed persons.

E. The municipal activities in such an unemployment scheme as is outlined above should be concentrated in the hands of a single "wethouder" (an official elected by the town council).

OLD-AGE PENSIONS AND RELIEF

Need for Old-Age Pensions

UNDER the title: "Where will you be at 65?" I. M. Rubinow, director of the Jewish Welfare Society and author of several works on social insurance, publishes in the New Republic of April 5, 1928, a critique of the study of the extent of old-age dependency recently issued by the National Civic Federation.[1] The title refers to one of the conclusions drawn from the study: "Men in this country stand a better chance of being worth $10,000 or more between 65 and 75 than of being destitute." From this conclusion Mr. Rubinow dissents, holding that the field covered by the study makes it nonrepresentative of the population as a whole. The investigation covered 13,785 persons, aged 65 and over, in 11 representative cities in 4 industrial Eastern States. For the honesty and accuracy of the factual material presented, as well as for the schedules and analysis, Mr. Rubinow has no criticisms, but as to the deductions and conclusions drawn from the material he holds that there is good ground for question.

Mr. Rubinow selects as a sample of the "rather surprising" statements given in the report, one which he summarizes as follows:

> That of all persons aged 65 years and over, 28.5 per cent owned property worth $10,000 or over, and an additional 17.3 per cent owned property worth $5,000 to $10,000. Thus, altogether 45.8 per cent, or nearly one-half of the old folks interviewed, owned property of $5,000 or over.

Such substantial savings, says Mr. Rubinow, seem highly improbable in view of the fact that out of 45,000,000 persons employed in this country, only 1 in 10 earns $2,000 or more per year. Without questioning the honesty of the investigation, he feels that the conclusions reached are open to question on several grounds: First, it is doubtful whether the cross section of the population taken is really representative. The study covered only about one-fourth of 1 per cent of the aged population, and was confined to four industrial States on the Atlantic seaboard, a part of the country in which the accumulation of private capital is known to be much greater than it is in the South, or even in the Middle West. In the second place, all persons in institutions, whether public or private, are omitted from the study. "There may have been perfectly good technical reasons for such exclusion, but any statistical study of dependency that deliberately omits a large group of obviously dependent people must lead to

[1] This study is reviewed in the May, 1928, issue of the Review under the title "Extent of old-age dependency."

erroneous results." In the third place, the method of assigning property in the case of married couples is misleading.

We are told, in a footnote to a table, that "both members of the married couple, of 65 years of age or over, are counted and placed in the same financial group." Observe the curious effect that must have upon the final statistics. If both husband and wife have no property, it is fair to count two people without property. But, if both husband and wife together own property at $5,000, isn't it a little misleading to add two to the group of those who possess $5,000? Obviously, the proportion of people with substantial property has been unduly increased in this way.

Another question is of the occupational make-up of the section of the population covered. The occupation a man follows has much to do with his opportunity for securing and maintaining independence, but on just this point Mr. Rubinow considers the study unsatisfactory.

When persons in the middle-class occupations are picked out, such as manufacturers, merchants, insurance agents, the professional men, clerical workers and salesmen, they are found to constitute nearly 27 per cent of the individuals studied, as against less than 13 per cent in the country at large. One needs to be no professional statistician to realize how that would affect the general figures. * * * It is no use to affirm that "men in this country stand a much better chance of being worth $10,000 or more, between 65 and 75, than of being destitute," without specifying what men these are, without showing whether this holds true only of bankers and physicians, or of workingmen as well.

But property is not the only source of income. Employment is an even more important matter, and in regard to this item, the study is again open to criticism.

The study has found 58.7 per cent, or nearly three-fifths, of the men employed. For the comparatively younger group of 65 to 69, the rate of employment was 75 per cent. For those 70 to 75 years of age, 54 per cent, for those 75 to 79, 37 per cent. One can hardly believe the figures which follow: The percentage of employment among those 80 to 84 years of age was 23 per cent, and among those 85 years of age, nearly 14 per cent. Of course, there was no real test of the fact of employment beyond the statement of the old folks, who may occasionally let their imagination run away with them, but if these figures are at all correct, more than any other fact they indicate that, from an occupational point of view, the sample studied was not representative.

Turning from the nature of the study to the actual facts presented, Mr. Rubinow points out that, in spite of the optimistic conclusions drawn from them, they really paint a serious situation calling for far-reaching measures of relief. The report, he points out, shows these facts:

1. Twenty-five per cent of the men and 34 per cent of the women over 65 years of age own no property at all.
2. Forty per cent have no income from work or business and some 17 per cent have neither property nor income.
3. Over 25 per cent, by their own admission, are totally unable to work, and 30 per cent able to do only light work which, added to the disqualification of age, makes them practically unavailable for industry. The comparatively high per cent of those still able to work (about 45 per cent) is probably largely due to the peculiar occupational distribution, the excessive representation of professional and commercial groups.
4. Many of those who were forced to retire are, in addition, afflicted by chronic illness, rheumatism, invalidity due to accident, etc.
5. Of the total number, some 60 per cent receive no aid, and 40 per cent are assisted primarily by children and to some extent by other relatives and friends. The number of those supported by public or private charity is very small, less than 1.5 per cent. That, of course, is largely explained by the failure to include any old people maintained in institutions.

Thus, Mr. Rubinow points out, in addition to the burden which public and private charity are carrying, old people represent a substantial burden upon their children and other relatives. But not all the aged have children able to help. Some 15 per cent have no children, and another 20 to 25 per cent have children who can give either no support or very little.

There is, then, the problem of old people who can not support themselves, who haven't accumulated enough, who must be supported by others; some of them may expect support from their children and others can not, and again, others are unmarried, or, if married, have no children.

To care for these, some broad, statesmanlike policy of dealing with the problems of old age is needed, and is probably on its way.

Whether a straight pension, or a system of social insurance, or a combination of both, will prove to be the best method is a subject for expert study and investigation. But the whole subject can not much longer be neglected by American legislatures. One may reasonably hope that the social conscience of the American people will not disregard much longer the problem of proper provision for the aged, only because some 30 or 40 per cent and not 85 or 100 per cent require it.

LABOR LAWS AND COURT DECISIONS

Right of Railroad Employees to Collective Bargaining Upheld

THE right of railroad employees to bargain collectively through representatives of their own choosing, as provided for in section 2 of the United States railway labor act, was upheld in a recent decision of the District Court for the Southern District of Texas. This decision in contempt proceedings against a railroad and its officers for violating an injunction based on the railway labor act is the first opinion in a case which will probably be taken to the United States Supreme Court to test the constitutionality of the act.

During the past several years the Texas & New Orleans Railroad Co. has had labor difficulties with the Brotherhood of Railway and Steamship Clerks, Freight Handlers, Express and Station Employees, an organization which claimed to represent a large number of its employees. As early as 1923 the United States Railroad Labor Board, established under the transportation act of 1920 (41 U. S. Stat. at Large, 456), in its decision No. 1971 ordered the railroad to recognize the brotherhood, and the railroad apparently complied to the extent required by the order of the board.

In 1927 a wage dispute, initiated by the brotherhood, was pending before a board of mediation created under the railway labor act of 1926 (44 U. S. Stat. at Large, 577). On August 2, 1927, the railroad requested the board of mediation to relinquish jurisdiction. On the following day, August 3, 1927, after a full hearing, the United States District Court issued an injunction restraining the railroad and its agents from violating the third paragraph of section 2, which provides:

> Representatives, for the purposes of this act, shall be designated by the respective parties in such manner as may be provided in their corporate organization or unincorporated association, or by other means of collective action, without interference, influence, or coercion exercised by either party over the self-organization or designation of representatives by the other.

The following day, August 4, 1927, the board of mediation declined to relinquish jurisdiction of the case before it and on the same day the railroad notified the board of mediation that the brotherhood did not represent a majority of its clerical employees, that it would have "no further dealing with them, and that it was satisfied that it could make an adjustment with the Association of Clerical Employees, Southern Pacific Lines, which it said represented a majority of the clerical employees." The association was "the favorite child" of the railroad company, according to the court, and "if not created, was largely sponsored, promoted, and maintained by it." It appears from the opinion of the court that the railroad thereafter continued on a course of action in violation of the injunction.

Contempt proceedings were brought against the railroad and others. Its defense was based mainly on the ground that the injunction had not been violated, but it also raised, by suggestion, the question of the power of Congress to enact paragraph 3, section 2, of the railway labor act of 1926, citing as authority for its contention the case of Coppage *v.* Kansas, 236 U. S. 1, and Adair *v.* United States, 208 U. S. 161.

The court handed down an opinion on February 6, 1928, in which it did not discuss in detail the evidence "with which this record teems of a deliberate violation of this injunction, legalistic, perhaps, through the advice of counsel, but none the less a violation." The court said that "it is fundamental that 'a person proceeded against' in a contempt case 'for disobeying an injunction can never set up as a defense that the court erred in issuing it. * * * Errors must be corrected by appeal and not by disobedience.'" In justifying a discussion of the authority of Congress to enact the provisions found in the railway labor act and objected to by the railroad, the court said:

> In view, however, of the long-continued, persistent, and at times bitterly rancorous assertion that noncontractual relations of employer and employee do not present justiciable matters, that injunctions in labor disputes are political and not judicial, and that a proceeding of this kind is not the exercise of judicial power, but merely an essay in usurped and tyrannical "government by injunction," it seems desirable to here briefly set down the reasons which support the conclusions of the preliminary opinion that Congress had full authority to make justiciable a controversy of this kind.

After a discussion of prior laws of Congress, decisions by the Supreme Court of the United States, and facts which led to the enactment of the railway labor act of 1926, the courts sustained the power of Congress in the following language:

> Nor can there longer be any doubt that Congress had the power to, and that it must, in the interest of public peace and safety, make certain, in the first step in negotiations between the railroad employer and employee (who have long since come to be recognized, as to this instrument of interstate commerce in their hands, not as private persons having the right to exercise "liberty through sheer antipathy," but as trustees of the public), that representatives of the railroad companies should not meet representatives of the employees, nominally elected by them, but in fact under the influence and control of the railroad companies. I therefore easily find that the legislation in question was not only within the power of Congress to enact, but that it should be liberally construed and applied, so as to give effect to the paramount public convenience subserved by it.
>
> Nor do I think it more debatable that both the letter and the spirit of the statute and of the injunction have been violated. While it is hard to believe that a railroad and its officials would deliberately seek to set at naught both the legislative and the judicial power of the United States, it is difficult to avoid the conclusion that the violation of the statute and of the injunction which followed its violation, was the result of a strong and settled purpose to defy both, and that that spirit of heady violence to obtain its ends, which has so often exhibited itself in these labor disputes, in the conduct of employees when the injunction was the other way, is not absent here.

After a discussion of the activity of the railroad in strengthening the Association of Clerical Employees and weakening the Brotherhood of Railway and Steamship Clerks, the court concluded its opinion in the following language:

> It is abundantly clear that the injunction issued to prevent such violation has been completely nullified, and that a remedial order should be entered,

completely disestablishing the Association of Clerical Employees, as now constituted through the action of the defendant, as representative of their fellows, and reestablishing the brotherhood as such representative, until by proper ballot the employees, without dictation or interference, vote otherwise, such order to further provide for the restoration to their positions and privileges of the officers of the brotherhood, and the restoration without loss of those of the employees whose discharge, though nominally predicated upon a violation of the rules, was really grounded upon antipathy because of their action on behalf of the brotherhood, and that the matters here involved should be referred to the proper law officers of the Government, for them to determine whether a proceeding for criminal contempt in the name of the United States should be begun. (Brotherhood of Railway and Steamship Clerks, etc. *v.* Texas & N. O. R. R. Co., D. C., S. D., Texas, Feb. 6, 1928, 24 Fed. (2d) 426.)

On April 19, 1928, the injunction was declared permanent with slight modification. It is the announced intention of the parties to take the case to the United States Supreme Court to test the constitutionality of the act as interpreted.

Enactment of Labor Law in Aguascalientes, Mexico

ON APRIL 1, 1928, the new labor law of Aguascalientes, Mexico, became effective, the text of which appears in the March 18, March 25, and April 1, 1928, issues of Labor Libertaria, the official publication of that State. This law covers such subjects as labor contracts, rights and obligations of the contracting parties, agricultural work, hours and wages, shop rules, safety and hygiene regulations, workmen's compensation, strikes and lockouts, and labor inspection.

INDUSTRIAL DISPUTES

Strikes and Lockouts in the United States in April, 1928

DATA regarding industrial disputes in the United States for April, 1928, with comparable data for preceding months are presented below. Disputes involving fewer than six workers and lasting less than one day have been omitted.

The bureau is dependent upon trade journals, newspapers, and labor periodicals for notices of strikes. These reports are followed up by correspondence and when necessary by personal visits of representatives of the Conciliation Service or of this bureau. The data here presented do not pretend to be absolutely complete or fully accurate. It is believed, however, that all the more significant strikes or lockouts are recorded, and that the information submitted is sufficiently accurate to give a fair presentation of the situation in the United States.

Table 1 is a summary table showing for each of the months—June, 1927, to April, 1928, inclusive—the number of disputes which began in these months, the number in effect at the end of each month, and the number of workers involved. It also shows, in the last column, the economic loss (in man-days) involved. The number of work-days lost is computed by multiplying the number of workers affected in each dispute by the length of the dispute measured in working-days as normally worked by the industry or trade in question.

TABLE 1.—INDUSTRIAL DISPUTES BEGINNING IN AND IN EFFECT AT END OF EACH MONTH, JUNE, 1927, TO APRIL, 1928

Month and year	Number of disputes		Number of workers involved in disputes		Number of man-days lost during month
	Beginning in month	In effect at end of of month	Beginning in month	In effect at end of of month	
June, 1927	75	82	18,585	196,047	4,859,468
July, 1927	62	62	33,763	199,087	5,307,089
August, 1927	53	50	8,066	198,367	4,998,596
September, 1927	46	49	12,514	197,588	4,960,249
October, 1927	48	56	12,695	81,766	2,722,110
November, 1927	26	50	4,089	82,207	2,031,740
December, 1927	26	52	4,243	81,191	2,128,721
January, 1928	43	62	18,263	81,676	2,135,092
February, 1928	47	61	33,602	104,883	2,155,559
March, 1928 [1]	36	63	10,689	81,406	2,421,987
April, 1928 [1]	47	70	139,638	208,464	4,993,233

[1] Preliminary figures subject to revision.

Occurrence of Industrial Disputes, by Industries

TABLE 2 gives by industry the number of strikes beginning in February, March, and April, 1928, and the number of workers directly involved:

TABLE 2.—INDUSTRIAL DISPUTES BEGINNING IN FEBRUARY, MARCH, AND APRIL, 1928

Industry	Number of disputes beginning in—			Number of workers involved in disputes beginning in—		
	February	March	April	February	March	April
Bakers		1	1		7	12
Barbers			2			2,062
Brewery and soft drinks		1			76	
Building trades	5	9	18	115	3,127	3,424
Chauffeurs and teamsters	2		1	415		450
Clerks and salesmen			1			490
Clothing workers	21	9	3	27,352	395	485
Glass workers		1			440	
Hotel and restaurant employees		1			16	
Laundry		1			200	
Longshoremen and freight handlers			1			25
Lumber and timber workers		2			200	
Metal trades		2			42	
Mine workers	2	5	5	2,425	6,024	105,259
Motion-picture and theatrical workers	1	1		65	9	
Paper and paper goods	1			1,200		
Printing and publishing	1			192		
Slaughtering and meat packing	2		1	31		21
Stone workers			5			1,980
Textile workers	7	2	8	1,457	144	25,395
Tobacco	1		1	35		35
Other occupations	4	1		315	9	
Total	47	36	47	33,602	10,689	139,638

Size and Duration of Industrial Disputes, by Industries

TABLE 3 gives the number of industrial disputes beginning in April, classified by number of workers and by industries:

TABLE 3.—NUMBER OF INDUSTRIAL DISPUTES BEGINNING IN APRIL, 1928, CLASSIFIED BY NUMBER OF WORKERS AND BY INDUSTRIES

Industry	Number of disputes beginning in April, 1928, involving—					
	6 and under 20 workers	20 and under 100 workers	100 and under 500 workers	500 and under 1,000 workers	1,000 and under 5,000 workers	5,000 workers and over
Bakers	1					
Barbers		1			1	
Building trades	3	11	2	1	1	
Chauffeurs and teamsters			1			
Clerks and salesmen			1			
Clothing		1	2			
Longshoremen and freight handlers		1				
Mine workers			1	1	2	1
Printing and publishing						
Slaughtering and meat packing		1				
Stone workers		2	2		1	
Textile workers	2	4	1			1
Tobacco workers		1				
Total	6	22	10	2	5	2

In Table 4 are shown the number of industrial disputes ending in April, by industries and classified duration:

TABLE 4.—NUMBER OF INDUSTRIAL DISPUTES ENDING IN APRIL, 1928, BY INDUSTRIES AND CLASSIFIED DURATION

Industry	Classified duration of strikes ending in April, 1928				
	One-half month or less	Over one-half and less than 1 month	1 month and less than 2 months	2 months and less than 3 months	3 months and less than 4 months
Bakers	1				
Barbers	1				
Building trades	6	6	2		
Chauffeurs	1				
Clerks and salesmen		1			
Clothing	3		1		
Longshoremen, etc	1				
Lumber and timber workers	1				
Mine workers	4				
Motion-picture and theatrical workers			1		
Stone workers	5				
Textile workers	4		1		1
Total	27	7	5		1

Principal Strikes and Lockouts Beginning in April, 1928

TEXTILE operatives in Massachusetts.—A general strike, on April 16, of cotton textile operatives in New Bedford resulted from an announcement, on April 9, of the cotton manufacturers (represented by the New Bedford Cotton Manufacturers' Association) of that city that a general wage reduction of 10 per cent would become effective on the former date. Announcement of a similar wage reduction was posted in the textile plants in Taunton, to become effective on the same date.

In both cities statements were issued by the manufacturers declaring the reduction necessary to bring the mills of these cities into effective competition with textile plants in other New England centers where similar reductions have been made during recent months.

The New Bedford Textile Council, composed of representatives of the seven local textile unions, affiliated with the American Federation of Textile Operatives, opposed the wage reduction and directed the locals to hold meetings to ballot on the question of striking in protest, there being about 8,000 accredited members of the locals affiliated with the council. The vote of the union membership was overwhelmingly in favor of striking.

Efforts on the part of the mayor and local business men to bring about a postponement of the strike were ineffective. The manufacturers were willing to postpone the wage reduction, provided the unions would refrain from taking a strike vote for another week. The textile council declared that although the vote could not be postponed, an arrangement might be made whereby the votes would be sealed and the result withheld for another week. The operatives, however, declared themselves out of sympathy with any sort of postponement.

When informed of the result of the ballot, in which every local involved decided in favor of a strike, the manufacturers' association issued a statement expressing regret that the council did not see fit to postpone its action, but saying there would be no change in the stand of the association. The latter also announced that the Beacon Manufacturing Co. had withdrawn from the association in consideration of the weavers and loom fixers having agreed to withdraw from their respective unions. This mill, it is understood, will continue operations under the old wage scale until the other mills in the city begin actual operations under some other scale.

This is one of the largest strikes the textile industry has ever faced, involving as it does 25 plants and approximately 25,000 workers of both sexes. An unusual feature of the strike is the fact that only about one-third of the strikers are organized.

The number of mills originally reported as affected by the strike included the Old Colony Silk Mills, whose employees first accepted a reduction and then decided to strike. From later developments, however, it appears that, although this strike at the silk mill occurred on the same date as the general strike, it was really a separate strike and has been so recorded. Most of the few operatives who reported for work on the morning of the 16th quit at noon. Late in the afternoon, notice of a shutdown was given by the secretary of the manufacturers' association, who issued this statement: "The mills opened as usual this morning. There was not sufficient interest shown to encourage the manufacturers to attempt to operate. The mills are therefore closed and will not reopen until further notice."

The strike involves, it is said, the following textile concerns:

Acushnet Mill Corporation, Booth Manufacturing Co., Bristol Manufacturing Corporation, Butler Mill, City Manufacturing Corporation, Gosnold Mills Co., Grinnell Manufacturing Corporation, Hathaway Manufacturing Co., Holmes Manufacturing Co., Kilburn Mill, Nashawena Mills, Neild Manufacturing Corporation, New Bedford Cotton Mills, Nonquitt Spinning Co., Page Manufacturing Co., Pemaquid Mills, Pierce Bros. (Ltd.), Pierce Manufacturing Corporation, Potomska Mills Corporation, Quissett Mill, Sharp Manufacturing Co., Soule Mill, Taber Mill (Inc.), Wamsutta Mills, and the Whitman Mills.

Since the strike began the local unions involved have voted to amalgamate with the United Textile Workers, an organization which is affiliated with the American Federation of Labor.

Barbers, New York.—Approximately 2,000 union barbers, in the Boroughs of Brooklyn and Queens, New York City, went out on strike April 3 for a higher wage. The strike, it is said, is the result of a refusal of the master barbers to arbitrate a weekly wage reduction of $5 which had been put into effect last February, when wages were reduced from $35 per week to $30.

On the night of April 3 it was reported from union sources that 200 of the 1,000 master barbers had agreed to return to the former wage scale of $35 a week. The journeyman barbers expected to resume work on April 4 in the shops that had granted their demands. The other shops were to be picketed.

By April 10 the number of master barbers who had agreed to the union terms was variously reported in the press as 500 to 650. The

other master barbers involved have shown determined opposition to the union demands.

Coal miners, anthracite, Pennsylvania.—A strike of 2,264 miners in five collieries of the Loree division of the Hudson Coal Co., in Luzerne County, on April 9 and 10, was occasioned by a dispute over wages, originating at the "Boston" colliery, involving an extra hour's pay to motor brakemen. The men returned to work pending a decision on their grievance by the anthracite conciliation board.

House wreckers, New York.—About 40 firms or contractors in New York City were involved in a strike of 1,750 house wreckers (laborers and barmen), from April 2 to April 21, because of their refusal to grant a wage increase of 10 cents per hour. The laborers had been receiving $1.15 an hour and the barmen $1.25 an hour. A settlement was made on the basis prevailing at the time the strike began, and the men returned to work with no change in rates

Granite-quarry workers, Maine.—A strike of about 1,500 quarrymen in six granite quarries located in the Rockland section of the State resulted from a disagreement with the manufacturers as to a wage scale to succeed the old agreement which had expired. Theoretically the strike began April 1, but April 2 was the first workday the men were out. The workmen wanted an increase of 5 cents per hour. The quarries involved were "Clark Island, Vinalhaven, Longcove, Wildcat, Halls Quarry, and Willards Bay."

Conferences conducted in a conciliatory spirit by both sides, aided by a representative of the United States Department of Labor, resulted in the consummation of an agreement for three years, carrying a wage increase of 2 cents per hour, instead of 5 cents per hour as demanded by the men. The agreement also provides for a 44-hour week, working hours to be 8 for the first 5 days of the week and 4 on Saturday. Under the old agreement working hours, it is understood, were 48 per week.

Principal Strikes and Lockouts Continuing into April, 1928

Bituminous Coal Strikes

NO MATERIAL change has occurred in the suspension of April 1, 1927, since the preceding report.

The suspension of April 1, 1928, affecting more or less extensively the States of Illinois, Indiana, Iowa, and what is known as the southwestern district, embracing Arkansas, Kansas, Missouri, and Oklahoma, is progressing as follows:

Indiana.—By April 10, according to press reports, most of the coal operators in Indiana had signed the "Jacksonville wage agreement" with the United Mine Workers, reopenings being dependent on the demand for coal. These mines, it is estimated, represent 75 per cent of the coal tonnage of the State. Practically all the companies in the State had renewed the Jacksonville scale with the United Mine Workers by the end of April, when the strike in Indiana is understood to have ended. Many of the companies, however, have been unable to reopen their mines because of the low prices for coal and the lack of demand. Production of coal in the State during the latter part of April was still far below normal

Illinois.—Reports from union sources were to the effect that by April 16 more than 70 mines in Illinois were working on the basis of the Jacksonville scale. These mines employ approximately 10,000 men and produced in 1927 more than one-fifth of the total output for the State.

Settlements with other operators continued to occur from time to time until April 28, when it was reported from Springfield, Ill., that according to the president of the Illinois miners every large coal company in the State, with one exception, had signed a separate agreement to operate under the Jacksonville scale, and that most of the companies were operating.

The large company referred to was the Chicago, Wilmington & Franklin Coal Co., which renewed the Jacksonville scale with the United Mine Workers and began operations May 1 at its mine at Orient, Ill. The strike in Illinois was therefore practically over by that time.

Iowa and the southwestern district.—Production reports show that the coal output in Arkansas for the third week in April was 96 per cent of the output for the last week in March, the week immediately preceding the strike.

Conciliation Work of the Department of Labor in April, 1928

By Hugh L. Kerwin, Director of Conciliation

THE Secretary of Labor, through the Conciliation Service, exercised his good offices in connection with 51 labor disputes during April, 1928. These disputes affected a known total of 43,839 employees. The table following shows the name and location of the establishment or industry in which the dispute occurred, the nature of the dispute (whether strike or lockout or controversy not having reached the strike or lockout stage), the craft or trade concerned, the cause of the dispute, its present status, the terms of settlement, the date of beginning and ending, and the number of workers directly and indirectly involved.

On May 1, 1928, there were 57 strikes before the department for settlement and in addition 15 controversies which had not reached the strike stage. The total number of cases pending was 72.

LABOR DISPUTES HANDLED BY THE UNITED STATES DEPARTMENT OF LABOR THROUGH ITS CONCILIATION SERVICE, APRIL, 1928

LABOR DISPUTES HANDLED BY THE UNITED STATES DEPARTMENT OF LABOR THROUGH ITS CONCILIATION SERVICE, APRIL, 1928

Company or industry and location	Nature of controversy	Crafts concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
					1928	1928		
Culinary crafts, California coast	Controversy	Culinary workers	Recognition and working conditions.	Pending	Mar. 30		400	100
Quarry workers, State of Maine	Strike	Quarry workers	Asked increase on renewal of agreement.	Adjusted. Received 2 cents per hour increase.	Apr. 1	Apr. 7	1,500	
Shoe workers, Derry, N. H.	Controversy	Shoe workers	(1)	Unclassified. Settled before arrival of commissioner.	(1)	Apr. 6	(1)	
Pellissier, Jonas & Rivet, Brooklyn, N. Y.	Strike	Fur workers	Asked 40-hour week	Adjusted. Allowed 41¼-hour week	Feb. 15	May 2	75	
Quarry workers, Concord, N. H.	Controversy	Quarry workers	Renewal of agreement	Adjusted. Some increases allowed. Agreement renewed.	Mar. 31	Apr. 1	150	
Granite cutters, polishers, and tool sharpeners, Concord, N. H.	Strike	Cutters, etc	Working conditions	Adjusted. Satisfactorily settled	Apr. 1	Apr. 4	250	
Barbers, Queens and Brooklyn, N. Y.	do	Barbers	Wages cut from $35 to $30 per week.	Pending	Apr. 3		2,000	
Johnson Motor Co., Waukegan, Ill.	Threatened strike.	Machinists	Organization trouble	do	Mar. 15		125	
Sheet-metal and iron workers, Gary, Ind.	Strike	Iron and metal workers.	Jurisdiction of hollow-metal work.	Adjusted. Terms settled by building trades department, American Federation of Labor.	Feb. 15	Apr. 24	10	150
Paving-stone cutters, Concord, N. H.	Controversy	Paving-stone cutters.	Agreement; wages	Adjusted. Increase of about $1 per week.	Mar. 13	Apr. 1	40	
Dainty Dress Co., Philadelphia, Pa.	Strike	Garment workers	Asked union recognition	Unclassified. Union recognition and union shop conditions granted.	Mar. 14	Apr. 2	13	
Sheplin & Palmer, Philadelphia, Pa.	do	Neckwear makers	Objection to nonunion shop-work.	Unclassified. Mediation not practicable.		Apr. 10	5	
Pennsylvania Coal Co., Pittston, Pa.	do	Miners	Wages and abolition of contract system.	Adjusted. Returned; terms fixed by district officials.	(1)	Apr. 19	1,650	50
Hod carriers, Ames, Iowa	do	Hod carriers	Asked increase	Adjusted. Allowed 10 cents per hour increase.	Apr. 1	Apr. 7	20	
House wreckers, New York City	do	House wreckers	Bar men asked $1.35 per hour; laborers, $1.25.	Adjusted. Bar men accepted $1.25; laborers $1.15, and former agreement.	Apr. 2	Apr. 23	1,750	500
Hudson Coal Co., Plymouth, Pa.	do	Miners	One hour per day deducted from wages of seven brakemen.	Adjusted. Returned; authorities to to fix terms.	Apr. 9	Apr. 11	3,000	100
Hudson Coal Co., Wyoming and Lackawanna Valleys, Pa.	Threatened strike.	do	Sympathy with brakemen	Adjusted. Strike averted when brakemen returned.	Apr. 11	do	18,000	

[1] Not reported.

LABOR DISPUTES HANDLED BY THE UNITED STATES DEPARTMENT OF LABOR THROUGH ITS CONCILIATION SERVICE, APRIL, 1928—Continued

Company or industry and location	Nature of controversy	Crafts concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
Plumbers, Pueblo, Colo.	Controversy	Plumbers	Objection to nonunion labor.	Adjusted. Agreed on open-shop conditions.	1928 (1)	1928 Apr. 30	30	297
Masons and bricklayers, Buffalo, N. Y.	do	Building crafts	Jurisdiction of brick and stone work.	Adjusted. Masons will do only stonework; bricklayers only brickwork.	(1)	Apr. 17	15	25
Poehlman Bros., Morton Grove, Ill.	Strike	Florists and gardeners.	Company demanded nonunion labor.	Pending. Part have returned on company's terms.	Feb. 16		175	
Columbus Dispatch, Ohio State Journal, and Columbus Citizen, Columbus, Ohio.	Lockout	Newspaper mailers	do	do	(1)		17	
Masonic Temple Building, Scranton, Pa.	Strike	Carpenters	Objection to nonunion labor.	Adjusted. Wages, hours, and conditions guaranteed in new contract.	Apr. 2	Apr. 21	25	45
Parochial school building, Scranton, Pa.	do	do	Asked signed agreement with union conditions.	Adjusted. Union conditions conceded without signed agreement.	do	do	15	45
Scottish Rite Temple, Indianapolis, Ind.	do	Ironworkers	Jurisdiction of metal work	Adjusted. International officers to fix terms.	Apr. 13	Apr. 16	25	75
Fidelity Philadelphia Trust Co. Building, Philadelphia, Pa.	do	Ironworkers and carpenters.	Jurisdiction of ironwork	Adjusted. Recognition and jurisdiction fixed in new agreement.	Apr. 9	Apr. 23	40	
Boston Manufacturing Co., Waltham, Mass.	do	Dyehouse workers	Working conditions	Pending. (Nothing can be done at present.)	(1)		32	
Kingston Coal Co., Kingston, Pa.	do	Miners (anthracite)	Discharge of committeeman	Adjusted. Returned; district officers to fix terms.	Apr. 13	Apr. 23	2,300	100
Martin Construction & Supply Co., Harrisburg, Pa.	do	Dredgers	Asked restoration of wage cut.	Adjusted. Returned without change.	Apr. 1	Apr. 18	100	30
St. Johns Hospital, Paterson, N. J.	do	Carpenters	Asked prevailing wage rate—$12 per day.	Adjusted. Returned; if $12 and 5-day week allowed, men will receive back pay.	Apr. 2	Apr. 6	45	40
Carpenters, Clifton, Paterson, Haledon, North Haledon, Hawthorne, Prospect Park, and Totowa Borough, N. J.	do	do	Asked $12 per day	Adjusted. Allowed $12 per day and 5-day week during the months of June, July, and August.	do	Apr. 16	1,500	
Laborers, Paterson, N. J.	do	Laborers (building.)	Asked $9 per day—$1 increase and 5-day week.	Adjusted. Allowed 75 cents per day increase and 5-day week during June July, and August.	do	do	1,200	2,000
Bricklayers, Paterson, N. J.	do	Bricklayers	Asked 5-day week	Adjusted. Allowed 5-day week during June, July, and August of each year.	do	do	450	2,500
Yellow Cab Co. (Inc.), and Brown & White Cab Co., Newark, Elizabeth, Orange, East Orange, and Bloomfield, N. J.	do	Taxicab drivers	Asked 33⅓ to 40 per cent of gross receipts; 1 holiday per week.	Adjusted. Demands modified and all returned pending arbitration proceedings.	Apr. 7	Apr. 18	450	

Bloomfield, N. J.			per week.	ceedings.				
Vegetable clerks, New York City	do	Retail clerks	Asked uniform wage rate, shorter hours, and recognition.	Pending	Apr. 9		(2)	
Liondale Shirt Co., Paterson, N. J	do	Shirt pressers	Rate of pay for piecework	Unclassified. Returned without change before arrival of commissioner.	Apr. 2	Apr. 4	15	160
Beaver Cleaning Co. et al., New York City.	do	Window washers	(1)	Pending	(1)		(1)	
Barbers, White Plains, N. Y	do	Barbers	Asked $40 per week and 50 per cent of all above $50 earned per chair.	Adjusted. Allowed $35 per week; arbitration proceedings still pending.	Apr. 10	Apr. 21	45	
Old Colony Silk Mills, New Bedford, Mass.	do	Weavers	Wages cut 12 per cent, first shift; 17 per cent, second shift; 12 per cent, third shift.	Pending	Apr. 16		200	
New Bedford Silk Mills, New Bedford, Mass.	do	do	Wages cut 25 per cent	do	Apr. 10		140	
Darlington Textile Manufacturing Co., Pawtucket, R. I.	do	do	Wages cut 40 per cent; must tend 4 looms instead of 3.	Adjusted. Arbitration pending.	Apr. 2	Apr. 24	125	125
David Adler & Sons, Milwaukee, Wis.	do	Clothing workers	Discharge of 4 union workers.	Pending. (Nothing can be done at present.)	Apr. 17		800	
Plumbers, Madison, Wis	do	Plumbers	Asked 5-day week without change in pay.	Adjusted. Allowed $1.37½ per hour; length of week satisfactorily arranged in new agreement.	Apr. 1	Apr. 21	50	
Building, Baltimore, Md	do	Building	(1)	Pending	(1)		(1)	
Cable Raincoat Co., Boston Mass	Controversy	Raincoat makers	Working conditions	Adjusted. Piecework, 44-hour week, all union during Government contract.	Apr. 1	May 3	30	
High School Building, Reading, Pa.	Strike	Building crafts	Wages cut 20 per cent	Adjusted. Wages restored	(1)	Apr. 25	35	40
Shamokin Packing Co., Tharptown, Pa.	do	Packing-house workers.	Alleged violation of agreement.	Unable to adjust. Open shop effective	Apr. 25	Apr. 28	11	14
Steel Pier, Atlantic City, N. J	do	Building	Asked prevailing wage—$1.50 per hour.	Pending	Apr. 15		30	
Parker Mills, Warren, R. I	do	Textile workers	Company proposed wage cut and longer hours; workers asked recognition.	Adjusted. Allowed recognition, 48-hour week, and wages adjusted later.	Feb. 1	Apr. 30	500	
Niel House, Columbus, O	do	Painters, paper hangers.	Wages; receivers refused to pay $1 per hour for decorators.	Pending	Apr. 27		8	
City Hospital, Alliance, O	Controversy	Carpenters	Refusal to continue paying $1.25 per hour.	Unclassified. Accepted $1.15 per hour before commissioner's arrival.	Apr. 29	May 3	12	
Lycoming Manufacturing Co., Williamsport, Pa.	Lockout	Patternmakers	Discharges for union affiliation.	Pending. (Nothing can be done at present.)	Apr. 24		35	
Total							37,443	6,396

[1 Not reported.]

[12011]

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First Emergency Board Under Railroad Labor Act of 1926

UNDER the railroad labor act of 1926 the President appointed the following five members of an emergency board to investigate and report to him concerning a controversy on wages and working conditions between the Kansas City, Mexico, & Orient Railroad Co. and four railway labor organizations: James Rudolph Garfield, Cleveland, Ohio; Carl Williams, Oklahoma City, Okla.; Justice Homer Bliss Dibell, State Capitol, St. Paul, Minn.; Arthur Thatcher, St. Louis, Mo.; Prof. Davis R. Dewey, Massachusetts Institute of Technology, Cambridge, Mass.

The railroad labor act provides that an emergency board may be established by the President if a railroad labor dispute can not be settled in accordance with the other provisions of the law and, in the judgment of the mediation board, such dispute threatens "to interrupt interstate commerce to a degree such as to deprive any section of the country of essential transportation service."

The organization meeting of the board was held May 11, 1928, at Wichita, Kans., and Justice Dibell served as chairman.

The employees were represented by E. H. Kruse, assistant grand chief of the Brotherhood of Locomotive Engineers; F. W. Lewis, vice president of the Brotherhood of Locomotive Firemen and Enginemen; J. A. Gannon, vice president of the Order of Railway Conductors: and S. R. Harvey, vice president of the Brotherhood of Railroad Trainmen.

The railroad labor act provides that after the creation of the board and for 30 days after its report has been made "no change, except by agreement, shall be made by the parties to the controversy in the conditions out of which the dispute arose."

Findings of the Board

THE report of the emergency board, submitted to President Coolidge the latter part of May, 1928, finds as follows:

(1) The financial condition of the Kansas City, Mexico & Orient Railway does not justify its paying at present, to its employees who are members of the four transportation labor organizations involved in the dispute, higher wage rates than the carrier has now proposed to pay, "having due regard to the maintenance of the road and the equitable compensation of employees in other branches of the service."

(2) Under existing circumstances the brotherhoods concerned in the dispute are not justified in putting their strike order into effect and should either accept the increases offered by the carrier or should arbitrate their wage controversy under the railroad labor act.

(3) The company is not warranted in declining to become a member of the southwestern board of adjustment and should forthwith become a member. Such board would take care of the eight pending grievances of individual members of the railroad brotherhoods, the determination of the merits of individual cases not coming within the province of the emergency board.

WAGES AND HOURS OF LABOR

Wages and Hours of Labor in Cotton Compresses, 1927

AN ARTICLE in the May, 1928, Labor Review describes the modern cotton gin and the occupations and working conditions of employees in the gin, and presents wages and hours of labor in the industry during the 1927 ginning season, by occupations and States, for a representative weekly pay period. The results of a like study of cotton compresses in 10 of the most important cotton-producing States are presented in this article.

To save space and thus obtain lower freight rates on cotton for export or for shipment from the gins to distant localities in the United States the bales of cotton as made in cotton gins are reduced by pressure in cotton compresses. The bales after compression are about one-half the original size. The original dimensions are 4½ by 4 by 2¼ feet. If only one dimension is reduced it is that of 4 feet; if two dimensions, those of 4 feet and 2¼ feet.

A very few cotton compresses are operated independently of any other work, but generally compresses are operated in conjunction with cotton warehouses. Upon delivery the cotton is moved by hand truckers into the establishment and compressed immediately if the compress is independent, or trucked into the storage room if the compress is part of the warehouse. As the cotton is delivered, markers brand or stencil each of the bales of each lot with the same brand and lot number. The truckers deliver the bales to openers who open the bales by breaking the ties or bands with an ax or by compressing the bales with a "dinky machine" sufficiently to permit slipping the ties or bands from the bales. The broken or loosened bands are taken from the bales by band removers. Two hooks or wires are attached to each side in the bagging of the bale of cotton by the band removers or by "hook boys" in a very few compresses. This is to keep the bale from falling apart after the removal of the bands or ties. Feeders then place (feed) the bales separately into a high-powered press where the bale is compressed or reduced in size. The press machinery is controlled or operated by levermen, who in some establishments also repair the press. The bands after removal from the cotton are cut into two pieces—one of two-thirds and the other one-third of the original length. Each piece of two-thirds of the original length is sufficient for the compressed bale. Two of the pieces of one-third of the original length are riveted together by band splicers, thus making

an additional band for the compressed bale. Head sewers with long needle and heavy twine sew the burlap covering at the ends of the bale; they also patch the burlap when necessary. The bands are again placed around the bale of cotton and fastened by tiers and reefers. The bale is then lifted by hoist from the press and placed on end by headers, who in some plants also push or tip over each bale, thus aiding the truckers, who move the cotton from the press to the warehouse or to railroad cars where the cotton is loaded by car loaders. Samplers take a small portion of cotton from one or more bales of each lot. Data are presented in Table 2 for the employees in each of the occupations enumerated above, for checkers and weighers of cotton, engineers, firemen, and also for all "other employees." The last group includes employees in all occupations which do not have a sufficient number of employees to warrant a separate classification.

Cotton compressing in establishments independent of other work is largely seasonal, following very closely the trend of picking and ginning of cotton. In warehouses, however, the work is done only on orders for export or for shipment to localities of sufficient distance to warrant the compression of the bales.

The warehouses are generally open for business the entire year, but the presses in warehouses are operated only intermittently. They may run steadily all day or for only an hour or two, and the employees who run the press part of the day may work in the warehouse the remainder of the day. In many plants it is unusual for the compress to be in operation a full day at any time, as the work is generally done in small lots. It is the practice in a great majority of the plants to keep a regular compress crew, consisting of all or part of the workers described above, for use when needed. When not compressing cotton the employees of the crew are employed at any necessary work around the press and warehouse, such as carrying, straightening, and cutting bands, keeping the machinery in repair, and moving cotton from one place to another. Extra helpers, such as truckers and other unskilled laborers, are let go when the press is not in operation. Many of them do nothing when the press is not operating, while a few do work at odd jobs. They seem to prefer the compress work and are usually ready to return when wanted.

The agents of the bureau were sent into 10 cotton States—Alabama, Arkansas, Georgia, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, and Texas—and collected wage data from the pay rolls of 67 establishments for a one-week pay period in September, October, or November. Data were obtained for a total of 4,071 male and 106 female employees, divided as follows: 279 white males, 38 Mexican males, 2,783 colored males, and 106 colored females; and 971 for whom information regarding race was not available.

Overtime work was paid for at the regular rate of pay by 37 compresses; at the rate of time and a half by 17; time and a quarter by 1 compress; and time and a half under certain conditions by 12 compresses. Bonuses were not reported for any of the employees of any plants.

The regular or customary full-time hours per week, based on the regular time of beginning and quitting work each day of the week when working under normal conditions, was 60 per week for 43 establishments, 48 for 12 establishments, 54 for 5 establishments, 44 for 4 establishments, and for one establishment each was 50, 55, and 57 hours per week, respectively.

Averages of the days on which employees worked in one week and of earnings and hours are presented in Tables 1 and 2. The figures for each sex are shown separately.

The averages include the hours and earnings for work in compresses and in warehouses in establishments in which compresses were operated in conjunction with warehouses, as it was not possible to separate the work.

The same data are shown in Table 2 by occupation, State, and race.

All occupations are not found in each compress. The reason is that while the operations are the same in all of them, the small establishments have only a few employees, thus making it necessary for an employee to work at more than one occupation. Under such conditions it was necessary in this study to show some employees in the occupation at which they worked most during the weekly pay period covered.

TABLE 1.—DAYS, HOURS, AND EARNINGS OF EMPLOYEES IN COTTON COMPRESSES, 1927, BY STATE AND RACE

Male employees

State and race	Number of establishments	Number of employees	Average number of days on which employees worked in one week	Average hours		Average earnings		
				Full-time per week	Actually worked in one week	Per hour	Full-time per week	Actual in one week
Alabama:								
White	5	28	5.9	65.0	62.4	$0.388	$25.22	$24.20
Colored	5	286	5.3	55.4	47.9	.253	14.02	12.10
Total	5	314	5.4	56.2	49.2	.268	15.06	13.18
Arkansas:								
White	6	46	5.6	64.7	56.9	.299	19.35	17.01
Colored	6	243	5.1	60.2	48.3	.278	16.74	13.46
Total	7	289	5.2	61.0	49.7	.282	17.20	14.03
Georgia:								
White	5	28	5.9	67.2	58.4	.365	24.53	21.30
Colored	7	587	5.1	52.3	41.6	.280	14.64	11.65
Total	7	615	5.1	53.0	42.4	.285	15.11	12.09
Louisiana:								
White	3	21	6.2	65.7	65.5	.438	28.78	28.71
Colored	6	396	5.4	60.1	48.8	.304	18.27	14.87
Total	6	417	5.4	60.4	49.7	.313	18.91	15.56
Mississippi:								
White	4	6	6.2	64.0	64.0	.386	24.69	24.69
Colored	11	355	5.5	60.5	53.3	.242	14.64	12.92
Total	11	361	5.5	60.6	53.5	.245	14.85	13.11

TABLE 1.—DAYS, HOURS, AND EARNINGS OF EMPLOYEES IN COTTON COMPRESSES, 1927, BY STATE AND RACE—Continued

Male employees—Continued

State and race	Number of establishments	Number of employees	Average number of days on which employees worked in one week	Average hours		Average earnings		
				Full-time per week	Actually worked in one week	Per hour	Full-time per week	Actual in one week
North Carolina:								
White	2	11	6.4	73.5	74.5	$0.357	$26.24	$26.62
Colored	2	152	5.8	53.6	50.5	.293	15.70	14.79
Total	2	163	5.8	54.9	52.1	.299	16.42	15.59
Oklahoma:								
White	3	20	6.2	60.9	59.9	.395	24.06	23.67
Colored	3	115	5.3	57.3	48.9	.341	19.54	16.71
Not reported	6	570	5.5	49.5	52.9	.381	18.86	20.14
Total	9	705	5.5	51.1	52.4	.375	19.16	19.68
South Carolina:								
White	3	20	6.2	62.8	61.5	.354	22.23	21.75
Colored	3	168	5.0	57.4	41.2	.256	14.69	10.55
Total	3	188	5.1	58.0	43.4	.271	15.72	11.74
Tennessee:								
White	2	4	5.0	54.0	39.5	.386	20.84	15.25
Colored	2	48	5.5	52.9	46.1	.252	13.33	11.63
Total	2	52	5.4	53.0	45.6	.261	13.83	11.91
Texas:								
White	10	95	6.0	62.0	60.2	.435	26.97	26.22
Colored	9	434	5.6	57.4	51.4	.351	20.15	18.02
Mexican	7	38	5.4	60.3	54.6	.288	17.37	15.70
Not reported	6	401	5.7	55.8	50.3	.343	19.14	17.23
Total	15	968	5.7	57.3	51.9	.355	20.34	18.41
All States:								
White	43	279	6.0	63.9	60.5	.389	24.86	23.52
Colored	54	2,783	5.3	56.9	47.7	.289	16.44	13.78
Mexican	7	38	5.4	60.3	54.6	.288	17.37	15.70
Not reported	12	971	5.6	52.1	51.8	.366	19.07	18.94
Total	67	4,071	5.4	56.2	49.6	.316	17.76	15.70

Female employees, colored

Alabama	2	16	5.8	55.0	51.6	$0.098	$5.39	$5.04
Georgia	5	37	5.7	54.2	47.0	.119	6.45	5.61
Louisiana	3	19	5.8	54.6	45.7	.183	9.99	8.37
Mississippi	5	11	5.6	58.9	52.5	.132	7.77	6.93
North Carolina	2	5	6.0	55.8	56.6	.140	7.81	7.94
Other States	3	18	5.9	60.0	49.6	.138	8.28	6.82
All States	20	106	5.8	55.9	48.9	.132	7.38	6.47

TABLE 2.—DAYS, HOURS, AND EARNINGS OF EMPLOYEES IN COTTON COMPRESSES, 1927, BY OCCUPATION, STATE, AND RACE

Male employees

Occupation, State, and race	Number of establishments	Number of employees	Average number of days on which employees worked in one week	Average hours		Average earnings		
				Full-time per week	Actually worked in one week	Per hour	Full-time per week	Actual in one week
Markers:								
Alabama—Colored	2	2	6.0	52.0	52.4	$0.236	$12.27	$12.38
Georgia—Colored	4	12	5.8	55.9	49.7	.306	17.11	15.23
Louisiana—Colored	3	4	6.0	60.0	55.5	.201	12.06	11.15
Mississippi—Colored	3	3	6.3	60.0	66.3	.265	15.90	17.58
Oklahoma—								
Colored	3	3	6.0	56.0	54.3	.317	17.75	17.20
Not reported	5	9	5.9	48.0	60.2	.401	19.25	24.16
Total	8	12	5.9	50.0	58.8	.382	19.10	22.42
Texas—								
White	1	1	6.0	60.0	58.0	.400	24.00	23.20
Colored	7	7	5.7	56.6	52.1	.319	18.06	16.59
Not reported	5	7	6.0	54.9	54.0	.341	18.72	18.42
Total	13	15	5.9	56.0	53.4	.335	18.76	17.89
Other States—Colored	4	4	6.3	58.0	53.0	.263	15.25	13.93
All States—								
White	1	1	6.0	60.0	58.0	.400	24.00	23.20
Colored	26	35	5.9	56.9	53.2	.284	16.16	15.09
Not reported	14	16	5.9	51.0	57.5	.377	19.23	21.65
Total	37	52	5.9	55.1	54.6	.316	17.41	17.27
Weighers and checkers:								
Alabama—								
White	3	6	6.0	60.0	60.0	.485	29.08	29.08
Colored	1	1	6.0	60.0	58.0	.250	15.00	14.50
Total	3	7	6.0	60.0	59.7	.452	27.12	27.00
Georgia—Colored	2	4	5.5	56.3	46.5	.324	18.24	15.06
Mississippi—								
White	2	3	6.0	60.0	60.0	.367	22.00	22.00
Colored	2	7	6.0	60.0	60.0	.254	15.21	15.21
Total	3	10	6.0	60.0	60.0	.288	17.25	17.25
Oklahoma—								
White	3	10	6.1	59.4	57.9	.432	25.66	25.00
Not reported	5	10	6.0	48.0	48.0	.668	32.08	32.08
Total	8	20	6.1	53.7	53.0	.539	28.94	28.54
South Carolina—White	2	2	6.0	60.0	60.0	.417	25.00	25.00
Texas—								
White	7	17	6.0	58.6	58.4	.515	30.18	30.07
Not reported	2	3	6.0	48.0	50.0	.677	32.50	33.85
Total	9	20	6.0	57.0	57.1	.537	30.61	30.64
Other States—								
White	1	6	6.0	60.0	60.2	.529	31.74	31.81
Colored	1	1	5.0	60.0	43.5	.300	18.00	13.05
Total	1	7	5.9	60.0	57.8	.504	30.24	29.13
All States—								
White	18	44	6.0	59.3	58.9	.479	28.40	28.24
Colored	6	13	5.8	58.8	54.4	.275	16.17	14.95
Not reported	7	13	6.0	48.0	48.5	.670	32.16	32.49
Total	28	70	6.0	57.1	56.1	.473	27.01	26.56

TABLE 2.—DAYS, HOURS, AND EARNINGS, OF EMPLOYEES IN COTTON COMPRESSES, 1927, BY OCCUPATION, STATE, AND RACE—Continued

Male employees—Continued

Occupation, State, and race	Number of establishments	Number of employees	Average number of days on which employees worked in one week	Average hours		Average earnings		
				Full-time per week	Actually worked in one week	Per hour	Full-time per week	Actual in one week
Openers, hand:								
Georgia—Colored	4	5	6.0	50.0	46.4	$0.280	$14.00	$12.98
Louisiana—Colored	2	3	5.7	60.0	49.8	.370	22.20	18.42
Mississippi—Colored	3	4	5.0	60.0	46.0	.247	14.82	11.38
Oklahoma—								
Colored	1	1	6.0	54.0	54.0	.300	16.20	16.20
Not reported	1	3	6.0	60.0	60.0	.300	18.00	18.00
Total	2	4	6.0	58.5	58.5	.300	17.55	17.55
Texas—								
Colored	2	4	6.0	60.0	59.0	.438	26.28	25.85
Not reported	2	5	6.0	60.0	60.0	.300	18.00	18.00
Total	4	9	6.0	60.0	59.6	.361	21.66	21.49
Other States—Colored	3	4	6.0	58.0	58.0	.362	20.98	20.98
All States—								
Colored	15	21	5.8	57.0	51.8	.339	19.32	17.58
Not reported	3	8	6.0	60.0	60.0	.300	18.00	18.00
Total	18	29	5.8	57.8	54.1	.327	18.90	17.70
Openers, dinkey press:								
Arkansas—								
White	1	2	6.0	60.0	60.0	.250	15.00	15.00
Colored	3	7	5.0	60.0	45.4	.304	18.24	13.81
Total	4	9	5.2	60.0	48.7	.289	17.34	14.08
Louisiana—Colored	3	6	4.5	60.0	39.3	.267	16.02	10.46
Mississippi—Colored	5	8	6.4	59.3	63.4	.254	15.06	16.07
Oklahoma—								
Colored	2	6	6.7	58.0	66.3	.362	21.00	24.03
Not reported	5	20	5.7	48.0	49.9	.401	19.25	19.99
Total	7	26	5.9	50.3	53.7	.390	19.62	20.93
Texas—								
Colored	7	19	5.8	56.8	52.6	.307	17.44	16.14
Not reported	6	26	5.5	52.2	50.4	.351	18.32	17.71
Total	13	45	5.7	54.1	51.4	.332	17.96	17.05
Other States—Colored	1	1	5.0	48.0	34.0	.250	12.00	8.50
All States—								
White	1	2	6.0	60.0	60.0	.250	15.00	15.00
Colored	21	47	5.7	58.1	53.0	.300	17.43	15.90
Not reported	11	46	5.6	50.3	50.2	.373	18.76	18.71
Total	33	95	5.7	54.4	51.8	.333	18.12	17.24
Band removers: Alabama—Colored	2	3	6.0	54.7	53.5	.232	12.69	12.42
Georgia—Colored	3	5	5.8	48.8	42.8	.276	13.47	11.82
Mississippi—Colored	3	4	4.5	60.0	43.8	.221	13.26	9.65
Oklahoma—								
Colored	2	2	5.5	54.0	49.5	.348	18.79	17.25
Not reported	5	11	5.9	49.1	56.5	.382	18.76	21.57
Total	7	13	5.8	49.8	55.4	.377	18.77	20.91
South Carolina—Colored	3	3	5.7	56.7	44.5	.315	17.86	14.02

TABLE 2.—DAYS, HOURS, AND EARNINGS OF EMPLOYEES IN COTTON COMPRESSES 1927, BY OCCUPATION, STATE, AND RACE—Continued

Male employees—Continued

Occupation, State, and race	Number of establishments	Number of employees	Average number of days on which employees worked in one week	Average hours		Average earnings		
				Full-time per week	Actually worked in one week	Per hour	Full-time per week	Actual in one week
Band removers—Continued.								
Texas—								
White	1	2	6.0	60.0	58.0	$0.400	$24.00	$23.20
Colored	2	2	5.5	60.0	50.8	.301	18.06	15.28
Mexican	1	1	6.0	60.0	60.0	.275	16.50	16.50
Not reported	2	5	4.8	60.0	48.0	.260	15.60	12.50
Total	6	10	5.3	60.0	51.8	.301	18.06	15.60
Other States—Colored	3	6	5.0	58.3	44.9	.300	17.49	13.47
All States—								
White	1	2	6.0	60.0	58.0	.400	24.00	23.20
Colored	18	25	5.4	55.8	46.1	.280	15.62	12.91
Mexican	1	1	6.0	60.0	60.0	.275	16.50	16.50
Not reported	7	16	5.6	52.5	53.8	.348	18.27	18.74
Total	27	44	5.5	54.9	49.8	.313	17.18	15.58
Band cutters and splicers:								
Alabama—								
White	1	1	6.0	60.0	60.0	.350	21.00	21.00
Colored	2	4	6.0	55.5	51.0	.285	15.82	14.54
Total	3	5	6.0	56.4	52.8	.300	16.92	15.83
Arkansas—Colored	2	7	5.0	60.0	46.5	.302	18.12	14.02
Georgia—Colored	4	14	5.7	56.1	47.8	.294	16.49	14.03
Louisiana—Colored	3	4	5.5	60.0	47.4	.307	18.42	14.53
Mississippi—Colored	5	8	5.6	59.3	53.9	.211	12.51	11.39
North Carolina—								
White	1	2	6.0	56.0	56.0	.400	22.40	22.40
Colored	2	8	5.3	55.6	50.0	.403	22.41	20.16
Total	2	10	5.4	55.7	51.2	.403	22.45	20.61
Oklahoma—								
White	1	2	6.0	54.0	54.0	.300	16.20	16.20
Colored	2	2	6.5	57.0	53.0	.325	18.53	17.20
Not reported	5	13	5.8	49.8	60.6	.374	18.63	22.68
Total	7	17	5.9	51.2	58.9	.361	18.48	21.27
South Carolina—								
White	2	7	5.9	55.7	50.6	.261	14.54	13.19
Colored	2	9	6.0	60.0	46.5	.241	14.46	11.23
Total	3	16	5.9	58.1	48.3	.250	14.53	12.08
Texas—								
White	1	2	6.0	60.0	58.0	.400	24.00	23.20
Colored	7	12	5.9	56.0	53.0	.379	21.22	20.06
Mexican	2	2	6.0	60.0	59.0	.386	23.16	22.75
Not reported	3	5	5.6	48.0	47.2	.379	18.19	17.90
Total	12	21	5.9	54.9	52.6	.382	20.97	20.10
Other States—Colored	1	2	6.0	48.0	46.0	.250	12.00	11.50
All States—								
White	6	14	5.9	56.4	53.6	.316	17.82	16.92
Colored	30	70	5.7	57.3	49.6	.306	17.53	15.18
Mexican	2	2	6.0	60.0	59.0	.386	23.16	22.75
Not reported	8	18	5.8	49.3	56.9	.375	18.49	21.35
Total	42	104	5.7	55.8	51.6	.322	17.97	16.63

TABLE 2.—DAYS, HOURS, AND EARNINGS OF EMPLOYEES IN COTTON COMPRESSES, 1927, BY OCCUPATION, STATE, AND RACE—Continued

Male employees—Continued

Occupation, State, and race	Number of establishments	Number of employees	Average number of days on which employees worked in one week	Average hours		Average earnings		
				Full-time per week	Actually worked in one week	Per hour	Full-time per week	Actual in one week
Feeders, compress:								
Alabama—Colored	4	5	6.0	55.6	57.1	$0.300	$16.68	$17.14
Arkansas—Colored	3	9	6.0	60.0	56.2	.299	17.94	16.83
Georgia—Colored	4	8	6.0	49.3	47.7	.275	13.56	13.14
Louisiana—Colored	3	12	5.6	60.0	50.9	.303	18.18	15.40
Mississippi—Colored	10	15	5.4	59.6	51.7	.234	13.95	12.08
North Carolina—Colored	2	4	5.8	55.5	55.0	.365	20.26	20.10
Oklahoma—								
Colored	3	5	5.6	57.6	49.0	.333	19.18	16.30
Not reported	6	24	5.5	49.0	53.7	.384	18.82	20.63
Total	9	29	5.6	50.5	52.9	.376	18.99	19.88
South Carolina—Colored	3	6	5.5	56.7	45.5	.262	14.86	11.93
Texas—								
Colored	9	18	5.7	58.0	51.8	.350	20.30	18.11
Mexican	1	1	6.0	60.0	60.0	.300	18.00	18.00
Not reported	5	16	5.6	55.5	47.9	.352	19.54	16.84
Total	14	35	5.7	56.9	50.2	.349	19.86	17.53
Other States—Colored	1	1	6.0	48.0	46.0	.250	12.00	11.50
All States—								
Colored	42	83	5.7	57.4	51.5	.299	17.16	15.41
Mexican	1	1	6.0	60.0	60.0	.300	18.00	18.00
Not reported	11	40	5.6	51.6	51.4	.372	19.20	19.11
Total	53	124	5.7	55.6	51.5	.323	17.96	16.63
Levermen:								
Alabama—								
White	2	2	6.0	57.0	57.0	.491	28.00	28.00
Colored	3	3	6.0	62.0	60.0	.297	18.41	17.80
Total	5	5	6.0	60.0	58.8	.372	22.32	21.88
Arkansas—								
White	3	3	6.0	60.0	60.0	.408	24.50	24.50
Colored	3	3	6.3	60.0	61.7	.362	21.72	22.33
Total	6	6	6.2	60.0	60.8	.385	23.10	23.42
Georgia—Colored	5	5	6.0	52.6	54.0	.361	18.99	19.49
Louisiana—Colored	5	10	5.9	60.6	57.1	.456	27.63	26.01
Mississippi—								
White	2	2	6.0	60.0	60.0	.497	29.81	29.81
Colored	7	7	5.7	59.1	56.9	.387	22.87	22.02
Total	9	9	5.8	59.3	57.6	.413	24.49	23.75
South Carolina—White	2	2	6.0	60.0	60.0	.375	22.50	22.50
Texas—White	4	5	6.0	60.0	60.0	.600	36.01	36.01
Other States—								
White	2	5	6.0	69.6	69.6	.438	30.46	30.46
Colored	1	1	7.0	60.0	70.0	.300	18.00	21.00
Total	3	6	6.2	68.0	69.7	.415	28.22	28.88
All States—								
White	15	19	6.0	62.2	62.2	.479	29.82	29.82
Colored	24	29	6.0	58.9	57.7	.390	22.97	22.52
Total	39	48	6.0	60.2	59.5	.427	25.71	25.41

TABLE 2.—DAYS, HOURS, AND EARNINGS OF EMPLOYEES IN COTTON COMPRESSES, 1927, BY OCCUPATION, STATE, AND RACE—Continued

Male employees—Continued

Occupation, State, and race	Number of establishments	Number of employees	Average number of days on which employees worked in one week	Average hours		Average earnings		
				Full-time per week	Actually worked in one week	Per hour	Full-time per week	Actual in one week
Head sewers:								
Alabama—Colored	5	9	5.8	55.1	52.1	$0.311	$17.14	$16.17
Arkansas—Colored	6	15	5.0	60.0	45.1	.283	16.98	12.77
Georgia—Colored	7	24	5.8	54.3	48.9	.322	17.48	15.75
Louisiana—Colored	5	13	5.8	60.0	54.0	.354	21.24	19.10
Mississippi—Colored	10	21	6.0	59.4	57.0	.252	14.97	14.37
North Carolina—Colored	2	4	6.0	55.5	55.3	.364	20.20	20.11
Oklahoma—								
Colored	3	6	5.3	56.0	49.5	.339	18.98	16.78
Not reported	6	17	5.1	49.4	50.3	.403	19.91	20.29
Total	9	23	5.2	51.1	50.1	.387	19.78	19.37
South Carolina—Colored	3	6	5.7	56.7	46.3	.317	17.97	14.69
Texas—								
Colored	9	18	5.9	57.3	54.0	.377	21.60	20.33
Not reported	6	11	5.9	53.5	53.0	.390	20.87	20.69
Total	15	29	5.9	55.9	53.6	.382	21.35	20.47
Other States—Colored	1	2	6.0	48.0	46.0	.250	12.00	11.50
All States—								
Colored	51	118	5.7	57.2	51.5	.317	18.13	16.30
Not reported	12	28	5.4	51.0	51.4	.398	20.30	20.44
Total	63	146	5.7	56.0	51.5	.332	18.59	17.09
Tiers:								
Alabama—								
White	1	3	6.0	60.0	60.0	.350	21.00	21.00
Colored	4	19	5.7	56.0	51.3	.312	17.47	16.02
Total	5	22	5.8	56.5	52.5	.318	17.97	16.70
Arkansas—								
White	1	2	6.5	65.0	65.0	.308	20.00	20.00
Colored	6	15	5.4	60.0	51.2	.338	20.28	17.33
Total	7	17	5.5	60.6	52.8	.334	20.24	17.64
Georgia—Colored	7	35	5.8	53.0	48.0	.364	19.29	17.48
Louisiana—Colored	6	25	5.9	58.0	55.2	.358	20.76	19.76
Mississippi—Colored	11	31	5.4	59.9	54.1	.291	17.43	15.74
North Carolina—Colored	2	10	6.0	55.6	55.6	.505	28.06	28.06
Oklahoma—								
Colored	3	8	5.9	56.3	53.3	.418	23.53	22.24
Not reported	6	32	5.8	49.5	58.7	.440	21.78	25.85
Total	9	40	5.8	50.9	57.6	.436	22.19	25.13
South Carolina—Colored	3	15	5.6	57.3	45.9	.353	20.23	16.18
Tennessee—Colored	2	5	6.0	52.8	50.4	.285	15.05	14.34
Texas—								
Colored	9	32	5.8	57.4	53.9	.428	24.57	23.07
Not reported	6	24	6.0	54.0	54.6	.404	21.82	22.07
Total	15	56	5.9	55.9	54.2	.418	23.37	22.64
All States—								
White	2	5	6.2	62.0	62.0	.332	20.60	20.60
Colored	54	195	5.7	56.9	51.9	.362	20.60	18.82
Not reported	12	56	5.9	51.4	57.0	.425	21.85	24.23
Total	68	256	5.8	55.8	53.2	.376	20.98	20.04

TABLE 2.—DAYS, HOURS, AND EARNINGS OF EMPLOYEES IN COTTON COMPRESSES, 1927, BY OCCUPATION, STATE, AND RACE—Continued

Male employees—Continued

Occupation, State, and race	Number of establishments	Number of employees	Average number of days on which employees worked in one week	Average hours		Average earnings		
				Full-time per week	Actually worked in one week	Per hour	Full-time per week	Actual in one week
Reefers:								
Alabama—Colored	4	16	5.8	55.5	51.7	$0.287	$15.93	$14.82
Arkansas—								
White	1	2	6.0	60.0	58.5	.263	15.78	15.36
Colored	6	14	5.4	60.0	50.6	.296	17.76	14.98
Total	7	16	5.5	60.0	51.6	.291	17.46	15.03
Georgia—Colored	6	38	5.9	54.4	49.9	.305	16.59	15.25
Louisiana—Colored	6	22	5.8	60.0	52.0	.331	19.86	17.21
Mississippi—Colored	10	22	5.6	59.5	53.1	.245	14.58	12.99
Oklahoma—								
Colored	3	8	6.0	56.3	54.1	.353	19.87	19.13
Not reported	6	31	5.9	49.5	57.3	.390	19.31	22.32
Total	9	39	5.9	50.9	56.6	.383	19.49	21.67
Tennessee—Colored	2	6	5.8	50.0	46.2	.271	13.55	12.51
Texas—								
Colored	9	29	5.9	57.5	53.5	.359	20.64	19.23
Not reported	6	22	6.0	54.0	53.9	.358	19.33	19.32
Total	15	51	5.9	56.0	53.7	.359	20.10	19.27
Other States—Colored	1	4	5.5	55.0	51.9	.302	16.61	15.68
All States—								
White	1	2	6.0	60.0	58.5	.263	15.78	15.36
Colored	47	159	5.8	57.0	51.7	.309	17.61	15.97
Not reported	12	53	5.9	51.4	55.9	.377	19.38	21.08
Total	60	214	5.8	55.6	52.8	.327	18.18	17.23
Truckers:								
Alabama—Colored	5	160	5.1	55.5	45.7	.232	12.88	10.63
Arkansas—								
White	3	7	4.3	60.0	39.9	.250	15.00	9.98
Colored	6	123	4.8	60.0	44.7	.264	15.84	11.80
Total	7	130	4.7	60.0	44.5	.263	15.78	11.70
Georgia—Colored	7	333	4.6	51.4	36.4	.252	12.95	9.19
Louisiana—Colored	6	236	5.1	60.0	46.2	.282	16.92	13.02
Mississippi—Colored	11	148	5.3	59.6	50.4	.227	13.53	11.45
North Carolina—Colored	2	78	5.7	50.6	45.3	.253	12.80	11.48
Oklahoma—								
Colored	3	54	4.6	58.0	43.5	.332	19.26	14.42
Not reported	6	332	5.3	48.2	50.6	.355	17.11	18.00
Total	9	386	5.2	49.6	49.6	.353	17.50	17.50
South Carolina—Colored	3	108	4.5	57.5	37.1	.238	13.69	8.83
Tennessee—Colored	2	17	4.8	52.2	38.4	.248	12.95	9.51
Texas—								
White	1	3	6.0	60.0	48.0	.325	19.50	15.60
Colored	9	167	5.4	56.8	47.7	.319	18.12	15.21
Mexican	6	25	5.0	58.1	50.4	.283	16.44	14.26
Not reported	6	183	5.6	54.7	47.1	.306	16.74	14.41
Total	15	378	5.4	55.9	47.6	.310	17.33	14.76
All States—								
White	4	10	4.8	60.0	42.4	.276	16.56	11.67
Colored	54	1,424	5.0	56.2	43.4	.264	14.84	11.45
Mexican	6	25	5.0	58.1	50.4	.283	16.44	14.26
Not reported	12	515	5.4	50.5	49.4	.339	17.12	16.72
Total	67	1,974	5.1	54.8	45.0	.286	15.67	12.86

TABLE 2.—DAYS, HOURS, AND EARNINGS OF EMPLOYEES IN COTTON COMPRESSES, 1927, BY OCCUPATION, STATE, AND RACE—Continued

Male employees—Continued

Occupation, State, and race	Number of establishments	Number of employees	Average number of days on which employees worked in one week	Average hours		Average earnings		
				Full-time per week	Actually worked in one week	Per hour	Full-time per week	Actual in one week
Car loaders:								
Alabama—Colored	2	4	6.0	52.0	51.3	$0.245	$12.74	$12.54
Arkansas—Colored	3	6	5.8	60.0	55.8	.309	18.54	17.25
Georgia—Colored	5	11	5.9	48.7	46.4	.288	14.03	13.37
Louisiana—								
White	1	2	6.0	60.0	60.0	.548	32.89	32.89
Colored	3	5	5.8	60.0	53.8	.305	18.30	16.43
Total	3	7	5.9	60.0	55.6	.380	22.80	21.13
Mississippi—Colored	6	8	5.4	60.0	47.4	.230	13.80	10.91
Oklahoma—								
Colored	2	4	6.2	55.5	55.5	.314	17.40	17.40
Not reported	1	1	6.0	60.0	60.0	.300	18.00	18.00
Total	3	5	6.2	56.4	56.4	.311	17.52	17.52
Texas—								
White	1	1	6.0	48.0	44.0	.350	16.80	15.40
Colored	8	24	5.8	56.0	51.8	.356	19.94	18.45
Not reported	2	2	6.0	60.0	60.0	.250	15.00	15.00
Total	10	27	5.8	56.0	52.1	.347	19.43	18.08
Other States—Colored	1	1	6.0	48.0	39.0	.250	12.00	9.75
All States—								
White	2	3	6.0	56.0	54.7	.495	27.72	27.06
Colored	30	63	5.8	55.5	50.8	.310	17.21	15.75
Not reported	3	3	6.0	60.0	60.0	.267	16.00	16.00
Total	33	69	5.8	55.7	51.4	.316	17.60	16.25
Samplers:								
Alabama—colored	3	7	5.9	57.4	55.6	.322	18.48	17.89
Arkansas—								
White	2	2	6.0	60.0	60.0	.288	17.25	17.25
Colored	3	7	6.0	60.0	59.4	.323	19.38	19.18
Total	5	9	6.0	60.0	59.6	.315	18.90	18.75
Georgia—Colored	3	6	5.7	48.0	43.8	.325	15.60	14.27
Louisiana—Colored	4	17	5.8	60.0	50.5	.356	21.36	17.96
Mississippi—Colored	5	7	5.7	59.1	53.2	.265	15.66	14.11
Oklahoma—								
Colored	3	5	6.4	57.6	61.1	.358	20.62	21.90
Not reported	5	12	5.9	48.0	57.4	.405	19.44	23.25
Total	8	17	6.1	50.8	58.5	.391	19.86	22.85
Texas—								
White	1	10	6.0	60.0	58.0	.500	30.00	29.00
Colored	8	17	5.8	57.9	55.0	.344	19.92	18.89
Not reported	5	11	5.8	55.6	52.2	.362	20.13	18.87
Total	14	38	5.9	57.8	55.0	.392	22.66	21.54
Other States—Colored	2	4	6.0	51.0	58.8	.250	12.75	14.69
All States—								
White	3	12	6.0	60.0	58.3	.464	27.84	27.04
Colored	31	70	5.9	57.4	53.9	.328	18.83	17.69
Not reported	10	23	5.9	51.7	54.9	.385	19.90	21.16
Total	44	105	5.9	56.5	54.6	.357	20.17	19.52

TABLE 2.—DAYS, HOURS, AND EARNINGS OF EMPLOYEES IN COTTON COMPRESSES, 1927, BY OCCUPATION, STATE, AND RACE—Continued

Male employees—Continued

Occupation, State, and race	Number of establishments	Number of employees	Average number of days on which employees worked in one week	Average hours		Average earnings		
				Full-time per week	Actually worked in one week	Per hour	Full-time per week	Actual in one week
Headers:								
Georgia—Colored	2	24	5.7	56.8	48.9	$0.307	$17.44	$15.01
North Carolina—Colored	2	5	6.0	55.6	55.7	.300	16.68	16.71
Oklahoma—								
Colored	2	2	6.0	57.0	56.0	.369	21.03	20.65
Not reported	6	8	5.9	49.5	56.8	.383	18.96	21.72
Total	8	10	5.9	51.0	56.6	.380	19.38	21.50
Texas—								
Colored	8	8	5.8	57.0	53.1	.331	18.87	17.58
Mexican	1	1	6.0	60.0	48.0	.325	19.50	15.60
Not reported	6	7	6.0	54.9	54.4	.327	17.95	17.78
Total	15	16	5.9	56.3	53.4	.329	18.52	17.54
Other States—Colored	1	2	6.0	50.0	50.5	.220	11.00	11.10
All States—								
Colored	15	41	5.8	56.3	51.0	.310	17.45	15.80
Mexican	1	1	6.0	60.0	48.0	.325	19.50	15.60
Not reported	12	15	5.9	52.0	55.7	.357	18.56	19.88
Total	28	57	5.8	55.3	52.1	.323	17.86	16.87
Engineers:								
Georgia—								
White	2	2	6.0	52.5	52.5	1.026	53.85	53.85
Colored	2	2	6.0	54.0	51.5	.414	22.36	21.30
Total	4	4	6.0	53.3	52.0	.723	38.54	37.57
North Carolina—								
White	1	1	6.0	72.0	72.0	.521	37.50	37.50
Colored	1	1	6.0	55.0	55.0	.455	25.00	25.00
Total	2	2	6.0	63.5	63.5	.492	31.25	31.25
Oklahoma—								
White	2	2	6.5	57.0	59.3	.451	25.71	26.70
Not reported	6	6	6.0	50.0	50.0	.673	33.66	33.66
Total	8	8	6.1	51.8	52.3	.610	31.60	31.92
Texas—								
White	7	8	6.0	55.5	55.5	.651	36.14	36.14
Not reported	5	5	6.0	55.2	56.4	.630	34.78	35.54
Total	12	13	6.0	55.4	55.8	.643	35.62	35.91
Other States—White	5	5	6.0	55.6	57.6	.693	38.53	39.92
All States—								
White	17	18	6.1	56.3	57.1	.669	37.66	38.18
Colored	3	3	6.0	54.3	52.7	.428	23.24	22.53
Not reported	11	11	6.0	52.4	52.9	.652	34.16	34.52
Total	31	32	6.0	54.8	55.2	.642	35.18	35.46
Firemen:								
Alabama—Colored	4	4	6.3	67.5	67.3	.333	22.48	22.40
Arkansas—								
White	2	2	5.5	60.0	54.0	.300	18.00	16.20
Colored	4	4	6.3	60.0	62.3	.307	18.42	19.09
Total	6	6	6.0	60.0	59.5	.305	18.30	18.13
Georgia—Colored	7	7	6.0	55.7	55.1	.308	17.16	16.99

TABLE 2.—DAYS, HOURS, AND EARNINGS OF EMPLOYEES IN COTTON COMPRESSES, 1927, BY OCCUPATION, STATE, AND RACE—Continued

Male employees—Continued

Occupation, State, and race	Number of establishments	Number of employees	Average number of days on which employees worked in one week	Average hours		Average earnings		
				Full-time per week	Actually worked in one week	Per hour	Full-time per week	Actual in one week
Firemen—Continued.								
Louisiana—								
White	1	1	6.0	60.0	60.0	$0.539	$32.31	$32.31
Colored	2	2	6.0	60.0	60.0	.271	16.25	16.25
Total	3	3	6.0	60.0	60.0	.360	21.60	21.60
Mississippi—Colored	10	10	5.4	61.8	53.4	.269	16.62	14.38
North Carolina—Colored	2	5	6.0	72.0	72.0	.314	22.60	22.60
Oklahoma—								
White	1	1	6.0	60.0	60.0	.400	24.00	24.00
Not reported	5	5	6.2	55.2	60.2	.447	24.67	26.92
Total	6	6	6.2	56.0	60.2	.439	24.58	26.44
South Carolina—								
White	1	1	6.0	60.0	60.0	.350	21.00	21.00
Colored	2	2	6.0	55.0	60.0	.275	15.13	16.50
Total	3	3	6.0	56.7	60.0	.300	17.01	18.00
Texas—								
White	3	3	6.0	56.0	56.0	.398	22.31	22.31
Colored	2	2	6.0	54.0	54.0	.512	27.63	27.63
Not reported	6	9	6.2	61.0	61.8	.490	29.89	30.23
Total	11	14	6.1	58.9	59.4	.474	27.92	28.16
Other States—Colored	1	1	6.0	60.0	55.0	.277	16.62	15.25
All States—								
White	8	8	5.9	58.5	57.0	.387	22.64	22.08
Colored	34	37	5.9	61.5	59.5	.308	18.94	18.31
Not reported	11	14	6.2	58.9	61.2	.475	27.98	29.05
Total	53	59	6.0	60.5	59.6	.359	21.72	21.37
Other employees:								
Alabama—								
White	4	15	5.8	69.7	64.9	.347	24.19	22.53
Colored	4	48	5.3	53.3	45.5	.236	12.58	10.76
Total	5	63	5.4	57.2	50.2	.270	15.44	13.56
Arkansas—								
White	6	25	5.7	68.3	60.1	.291	19.88	17.46
Colored	5	29	5.5	62.0	53.2	.238	14.76	12.66
Total	7	54	5.6	64.9	56.4	.264	17.13	14.88
Georgia—								
White	5	26	5.9	68.3	58.9	.319	21.79	18.80
Colored	7	54	5.8	52.4	47.9	.266	13.94	12.72
Total	7	80	5.8	57.6	51.5	.286	16.47	14.70
Louisiana—								
White	3	11	6.5	70.9	70.5	.338	23.96	23.83
Colored	6	34	5.7	62.8	55.7	.304	19.09	16.93
Total	6	45	5.9	64.8	59.3	.314	20.35	18.61
Mississippi—								
White	1	1	7.0	84.0	84.0	.268	22.50	22.50
Colored	11	52	5.7	65.2	58.8	.225	14.67	13.21
Total	11	53	5.7	65.5	59.2	.226	14.80	13.38

TABLE 2.—DAYS, HOURS, AND EARNINGS OF EMPLOYEES IN COTTON COMPRESSES, 1927, BY OCCUPATION, STATE, AND RACE—Continued

Male employees—Continued

Occupation, State, and race	Number of establishments	Number of employees	Average number of days on which employees worked in one week	Average hours		Average earnings		
				Full-time per week	Actually worked in one week	Per hour	Full-time per week	Actual in one week
Other employees—Continued.								
North Carolina—								
White	2	4	7.0	84.0	87.0	$0.260	$21.84	$22.63
Colored	2	28	6.0	55.9	55.8	.238	13.30	13.29
Total	2	32	6.1	59.4	59.7	.242	14.37	14.46
Oklahoma—								
White	2	4	6.3	70.5	68.0	.299	21.08	20.35
Colored	3	9	4.9	57.3	46.4	.307	17.59	14.25
Not reported	6	36	5.9	61.6	59.2	.383	23.59	22.68
Total	9	49	5.7	61.6	57.6	.364	22.42	20.94
South Carolina—								
White	3	7	6.6	73.7	73.7	.328	24.16	24.16
Colored	3	15	6.0	56.9	53.4	.238	13.54	12.71
Total	3	22	6.2	62.3	59.9	.273	17.01	16.35
Tennessee—								
White	2	3	4.7	56.0	36.7	.282	15.79	10.33
Colored	2	6	5.3	61.7	51.7	.210	12.96	10.83
Total	2	9	5.1	59.8	46.7	.229	13.69	10.67
Texas—								X
White	6	43	6.1	66.4	64.2	.354	23.51	22.69
Colored	8	75	5.8	59.2	54.7	.375	22.20	20.48
Mexican	4	8	6.4	67.3	66.0	.274	18.44	18.09
Not reported	6	60	5.9	62.3	52.9	.339	21.12	17.94
Total	15	186	5.9	62.2	56.8	.353	21.96	20.07
All States—								
White	34	139	6.0	68.7	63.8	.326	22.40	20.83
Colored	51	350	5.7	58.4	52.7	.278	16.24	14.64
Mexican	4	8	6.4	67.3	66.0	.274	18.44	18.09
Not reported	12	96	5.9	62.1	55.3	.357	22.17	19.71
Total	67	593	5.8	61.6	55.9	.303	18.66	16.96

Female employees, colored

Sweepers:								
Alabama	2	16	5.8	55.0	51.6	$0.098	$5.39	$5.04
Georgia	5	37	5.7	54.2	47.0	.119	6.45	5.61
Other States	6	13	5.5	58.3	50.2	.129	7.52	6.47
Total	13	66	5.7	55.2	48.8	.116	6.40	5.64
Other employees: [1]								
Louisiana	3	18	5.8	54.7	45.6	.187	10.23	8.50
Mississippi	4	9	6.2	58.7	57.4	.133	7.81	7.63
Other States	2	13	6.0	50.6	48.5	.146	8.70	7.07
Total	9	40	6.0	57.2	49.2	.159	9.09	7.84

[1] Cotton sorters and pickers-up of loose cotton.

International Comparison of Real Wages, January, 1928

A COMPARISON of real wages in various large cities of the world in January, 1928, is contained in the International Labor Review (Geneva) for April, 1928, in continuation of similar figures compiled periodically by the International Labor Office.

The table given below presents the more important points in the comparison. The figures are in the form of index numbers, London being used as the base, or 100. It should be noted that the wage data relate only to a few classes of workers, namely, those in the building, metal, furniture, and printing and publishing trades, and that the price data are limited to certain articles of food and to rent. Thus, the index numbers can be taken only as a very rough indication of the relative levels of real wages of adult male workers in certain occupations and cities. In many instances, however, the figures shown indicate such wide differences between cities that they may be accepted as reflecting real differences in the level of well-being of the workers in different countries.

It will be seen that Philadelphia had the highest real wage level of any of the 17 cities included, its index number being 192, or 92 per cent higher than that of London. Ottawa had the next highest figure, with Copenhagen, the highest of the European cities, coming next, while the wage level in Rome was less than one-fourth that of Philadelphia and in Lisbon less than one-sixth. However, the International Labor Office points out that the low levels of Rome and Lisbon may be accounted for in part by the differences in the items of food consumption in the southern European countries from those ordinarily consumed in most of the other countries included in the table.

INDEX NUMBERS OF COMPARATIVE REAL WAGES IN VARIOUS CITIES, JANUARY, 1928

[London, January, 1928=100]

City	General average index numbers		City	General average index numbers	
	Based on food only	With allowance for rent		Based on food only	With allowance for rent
Philadelphia	192	192	Madrid	55	----
Ottawa	162	160	Vienna	47	53
Copenhagen	109	109	Lodz	47	48
Dublin	101	110	Brussels	46	49
London	100	100	Rome	45	47
Stockholm [1]	90	89	Warsaw [2]	44	46
Amsterdam	82	82	Tallinn	40	----
Berlin	66	61	Lisbon	30	----
Paris	59	----			

[1] The figures are based on wages in the building, furniture-making, and printing industries only. For other cities the metal industry also is included.
[2] Based on a weighted average wage. For other cities an unweighted average has been used.

Methods of Wage Payment

A STUDY of the different methods of wage payment in use in the 672 member establishments of the National Metal Trades Association has recently been published by that association.[1] No attempt was made in the report to analyze problems of production control, planning, scheduling, cost accounting, or other phases of shop management, attention being confined to "the relationship between the method of wage payment, the employee, and his pay envelope." Part of the information was obtained by the questionnaire method but most of it was secured through personal visits to the plants by a representative of the association.

Of the plants covered, 307, or 45.7 per cent, paid their employees on a straight time basis, and 365, or 54.3 per cent, paid some or all of the employees on an incentive plan. In the establishments using the incentive plan nearly 50 per cent of the employees were paid on that basis. Considering the total number of employees represented in the study, it was found that approximately 27.5 per cent were paid on an incentive basis, 45.7 per cent on a straight time basis in plants not having incentive plans, and 26.8 per cent on a straight time basis in plants using incentive plans.

The wage plans used as direct incentives were predominantly of the simpler types, that is, piecework and 50–50 premium. In 88 plants, or about one-fourth of the 365 using incentive plans, two or more plans were in operation, generally piecework and premium or one of these and a bonus. The total number of plans was 489, of which 247 (50.5 per cent) were piecework, 104 (21.3 per cent) premium, 53 (10.8 per cent) bonus, 33 (6.7 per cent) group, and 52 (10.6 per cent) miscellaneous.

Five-Day Week in New Jersey Building Trades

ALL building trades in Monmouth County, N. J., will be on a five-day week basis beginning May 5, 1928, as the result of an agreement between the Monmouth County Building Trades Council and the Master Builders' Association, according to an announcement in The American Contractor (Chicago) for April 21, 1928. Approximately 3,000 building-trades workers are affected. The plan has been adopted as an experiment for the remaining months of 1928, but if the arrangement proves satisfactory the agreement will be extended for another year.

No increase in wages is provided, although it is reported that "agitation has already started for an increase to offset the shorter working week."

[1] National Metal Trades Association. Committee on Industrial Relations. Methods of wage payment. Chicago, 1928.

Wages in Various Industries in France in October, 1927

AN ANNUAL wage study is made by the General Statistical Bureau of France [1] giving the average wages of certain classes of workers who are represented in nearly all localities and which furnish therefore uniform elements of comparison. The information is furnished by officers of trade councils, employers' organizations, and mayors or other competent persons and is on a basis comparable with former studies.

The following table gives the hourly wages in different occupations in October, 1926 and 1927, in Paris and in other cities:

AVERAGE HOURLY WAGES IN FRENCH CITIES, OCTOBER, 1926, AND OCTOBER, 1927, BY OCCUPATION

[Conversions made on basis of average exchange rate of franc=2.94 cents in October, 1926; 3.92 cents in October, 1927]

Paris and its environs

Occupation	Average hourly wages		Occupation	Average hourly wages	
	October, 1926	October, 1927		October, 1926	October, 1927
Males	*Cents*	*Cents*	*Males*—Continued	*Cents*	*Cents*
Printers—compositors	17.6	22.3	Quarrymen	14.0	18.6
Bookbinders	13.5	18.0	Stonecutters	16.2	21.6
Tailors	16.9	22.5	Masons	14.7	19.6
Wood turners	14.7	20.6	Navvies	15.4	19.6
Cabinet makers	16.2	21.6	Tilers	13.2	18.6
Pit sawyers	14.7	19.6	House painters	14.0	19.2
Carpenters	14.7	19.6	Ornamental carvers	16.2	21.6
Joiners	14.0	18.6	Brickmakers	14.7	19.6
Plumbers	13.2	18.6	Glaziers	15.4	22.5
Blacksmiths	17.6	22.0			
Locksmiths	13.2	18.6	Average, all occupations	15.0	20.1
Metal turners	14.6	19.2			

Cities other than Paris

Males	*Cents*	*Cents*	*Males*—Continued	*Cents*	*Cents*
Brewers	8.2	11.3	Watchmakers	10.7	14.4
Printers—compositors	10.3	14.5	Quarrymen	9.5	13.0
Bookbinders	10.1	13.7	Stonecutters	10.6	14.5
Tanners	8.6	11.8	Masons	10.2	13.6
Saddlers—harness makers	8.7	12.0	Navvies	8.5	11.6
Shoemakers	8.2	11.6	Tilers	10.2	13.8
Tailors	9.3	12.8	House painters	9.6	13.2
Dyers—scourers	8.6	11.8	Ornamental carvers	12.5	17.1
Weavers	7.8	10.7	Brickmakers	8.9	12.5
Rope makers	8.0	11.4	Potters	9.0	12.0
Wheelwrights	9.3	12.8	Glaziers	9.3	12.7
Wood turners	9.8	13.3	Laborers	7.1	9.9
Coopers	9.5	13.1			
Cabinet makers	10.2	13.7	Average, all occupations	9.5	13.0
Upholsterers	10.1	13.8			
Pit sawyers	9.3	13.0	*Females*		
Carpenters	10.2	13.8			
Joiners	9.8	13.2	Ironers	5.5	7.3
Coppersmiths	10.2	14.0	Dressmakers	5.4	7.3
Tinsmiths	9.6	13.1	Seamstresses	5.1	6.8
Plumbers	9.7	13.4	Waistcoat makers	5.4	7.0
Blacksmiths	9.8	13.4	Lace makers	5.9	7.0
Farriers	9.5	12.7	Embroiderers	5.7	7.2
Stove makers	9.4	13.2	Milliners	5.3	7.1
Locksmiths	9.6	13.1			
Metal turners	10.0	13.8	Average, all occupations	5.5	7.1

[1] France. Ministère du Travail. Bulletin de la Statistique Générale de la France. January–March, 1928, pp. 177–192.

Real Wages

THE following comparison of wages and the cost of living as represented by the cost of board and lodging for an unmarried worker in the same localities for which data for wages were secured shows that there was very little real change in the purchasing power of wages during the year. While the index number of men's wages was 1.5 per cent higher in October, 1927, than in October, 1926, the index numbers of women's wages on the other hand had fallen 3 per cent and the cost of board and lodging of single workers had increased 4.7 per cent in the same period. The retail price index (based on 13 articles) showed a reduction of 18.7 per cent, but this index, relating as it does to articles of prime necessity alone, represents the influence of price changes upon the cost of a fixed standard of living, while the cost of board and lodging of single workers may represent changes in the standard of living.

AVERAGE DAILY WAGES AND COST OF BOARD AND LODGING IN FRANCE, OCTOBER, 1926 AND 1927, AND INDEX NUMBERS THEREOF AND OF RETAIL PRICES IN NOVEMBER, 1926 AND 1927.

[Conversions made on basis of average exchange rate of franc=2.94 cents, October, 1926; 3.92 cents, October, 1927]

Item	October, 1926	October, 1927	Index numbers (1911=100)	
			October, 1926	October, 1927
Daily wages:				
Men	$0.79	$1.07	584	593
Women	.45	.58	668	648
Cost of board and lodging per month	12.35	17.25	600	628
Retail prices of 13 articles [1]			638	519

[1] For November, 1926, and November, 1927, respectively.

Wages and Hours of Labor in German Metal Works

THE following information regarding wages and hours of labor and other labor conditions in German metal works is taken from a recent report of the United States Bureau of Foreign and Domestic Commerce.[1]

Wages

ON THE whole, American wages are about three and one-half times as high in gold as the German, and about two and one-half times as high when the relative cost of living is considered. The average German skilled mechanic earns from 15 to 22½ cents an hour, depending upon the district and the shop. The Saxony district is the cheapest section, where wages are generally 15 per cent under those of the Rhineland-Westphalia section. The cost of living in Saxony is also proportionately less, as that is a fertile agricultural area. In Saxony, however, strikes of short duration

[1] United States. Department of Commerce. Bureau of Foreign and Domestic Commerce. Trade Information Bul. No. 540: German metal-working machinery industry and trade. Washington, 1928.

are not infrequent. Unskilled labor receives from 12½ to 17½ cents an hour. Women and girls are employed at $4.50 a week and up. In considering wages it must not be forgotten that the living requirements of the German workman are relatively simple.

Arbitration

GERMANY has recently given power to the Federal Government whereby in any labor dispute the decisions of the arbitrator, appointed by the Minister of Labor, will have a legal status and may be enforced by the Government on either party.

"Should the labor unions fail to accept the verdict of the arbitrator the Government is empowered to cut off all doles and other financial support paid to the workmen, until the unions obey orders. On the other hand, the Government is empowered to seize property and money of the employers in order to enforce the legal obligations of the company to its workmen.

"Although this plan has been in force only a short time it has already forced compromise in a number of threatening serious strikes. It undoubtedly reduces the uncertainty attached to constant strikes and lockouts and brings about a very desirable uniformity of operation."

Distribution of Employees

THE statement below, quoted from the report, shows the composition of the employees of the average German machinery factory. These are official figures of the V. D. M. A. covering all classes of machinery factories.

"Out of each 1,000 employees on the pay rolls there were in 1914, 837 wage workers and 163 salaried employees, which was a ratio of 1 salaried employee to each 5.1 wage workers.

"In 1927 there were 200 salaried employees to each 800 wage workers, giving a ratio of 4 to 1. In 1914 in each 1,000 workmen there were 509 skilled mechanics, 115 apprentices, 202 semiskilled workmen, 147 unskilled helpers, and 27 miscellaneous (women, boys, clerks, and pupils). In 1926 this distribution was 494 skilled mechanics, 170 apprentices, 183 semiskilled workmen, 107 unskilled helpers, and 46 miscellaneous. This latter miscellaneous group of 46 is further divided into 8 factory clerks, 15 boys, 14 women, and 9 pupils.

"During the inflation nearly all manufacturers employed a great many new men. When stabilization came, these factories were all overstaffed. The manufacturers could dismiss their wage workmen easily, but the salaried employees were to a greater extent carried along. This accounts in some measure for the great proportion of salaried employees—1 to each 4 wage workers. This is, however, a somewhat normal characteristic of most Continental factories, as is shown by the figures for 1914, when the proportion was 1 to 5. It is a very considerable burden.

"In 1926 the distribution of salaried employees of the entire company pay rolls was as follows for each 1,000: Administrative, 426; construction and maintenance, 294; factory, 280. The distribution in each of the three departments is as follows for each 1,000 salaried employees: Administrative department, 102 male technical workers,

562 men engaged in business activities, 234 women, 8 boy assistants, 94 apprentices; in the construction department, 820 male technical workers and 47 assigned to business problems, 38 women, 8 boy assistants, and 87 office apprentices; in the factory department, 734 male technical workers, 206 male employees engaged in business activities, 39 women, 4 boy assistants, and 17 office apprentices."

Hours of Labor

ALTHOUGH the legal working-day in Germany is now 8 hours, "the general practice is to work 9 and in many cases 10 hours a day. The man who is anxious to earn more is quite willing to work overtime. V. D. M. A. statistics show that in the last half of 1926 about 8 per cent of the member companies were working over 54 hours; about 40 per cent were working over 48 hours, and about 25 per cent under 48. This of course varies with the amount of work in the shop."

TREND OF EMPLOYMENT

Employment in Selected Manufacturing Industries in April, 1928

EMPLOYMENT in manufacturing industries decreased 0.5 per cent in April, 1928, as compared with March, 1928, and pay-roll totals decreased 1.4 per cent.

A decrease in employment in April, as compared with March, has become customary, the trend having been downward in each of the last five years. However, the decrease in April, 1928, was considerably less than in three of the four years preceding. Pay-roll totals, as a rule, show a greater drop in April than does employment owing to the custom, prevailing in many localities, of closing plants for one or more days at Easter time.

The Bureau of Labor Statistics' weighted index of employment for April, 1928, is 85.7, as compared with 86.1 for March 1928, 85.5 for February, 1928, and 90.6 for April, 1927; the weighted index of pay-roll totals for April, 1928, is 89.9, as compared with 91.2 for March, 1928, 90.0 for February, 1928, and 96.6 for April, 1927. The monthly average for 1923 equals 100.

Employment and pay-roll totals in April, 1928, were 5.4 per cent and 6.9 per cent lower, in the two items, respectively, than in April, 1927.

The data for April, 1928, were based on returns made by 10,788 establishments in 54 of the chief manufacturing industries of the United States. These establishments in April had 3,005,964 employees whose combined earnings in one week were $81,116,831.

Comparison of Employment and Pay-Roll Totals in March and April, 1928

TWENTY-FOUR of the 54 separate industries had more employees in April than in March, and 21 industries reported increased pay-roll totals, the seasonal trend being especially well defined in these increases as well as in the decreases of other industries. The outstanding increases in employment were 7.9 per cent in ice cream; 5.1 per cent in brick; about 3 per cent each in cement, rubber boots, and sugar; approximately 2.5 per cent each in machine tools, stoves, sawmills, millwork, stamped ware, carriages and wagons, and automobiles; and approximately 1.5 per cent each in cast-iron pipe, fertilizers, glass, brass, pianos, and shipbuilding. The foundry and machine-shop products and the steam-car industries each reported 1 per cent more employees in April than in March.

The iron and steel industry showed a decrease in employment of 0.1 per cent and petroleum refining a decrease of 1.6 per cent. Slaughtering and meat packing, as usual in April, reached its minimum employment level for the year, with a decrease of 3.9 per cent, and flour reported a decrease of 3.4 per cent. All textile industries, except millinery, showed a marked decline—for example, men's clothing,

over 7 per cent; cotton, 2.5 per cent; silk, 4.7 per cent; and woolen goods, over 2 per cent. Confectionery, hardware, furniture, leather, boots and shoes, paper boxes, book and job printing, chewing tobacco, cigars, electric-car repairing, and rubber tires were other industries reporting notable declines in employment.

One-half of the 12 groups of industries showed increased forces in April, the stone-clay-glass group leading with an increase of 2.4 per cent, followed by the iron and steel, other metal products, lumber, and vehicle groups, and the group of miscellaneous industries. In the remaining 6 groups the leather group reported the greatest decrease in employment and the chemical group the smallest decrease.

The Pacific and Mountain geographic divisions made very satisfactory gains in employment in April over March, and the East North Central and the East South Central divisions each gained 0.3 per cent; the remaining 5 divisions each showed fewer employees, especially the New England, Middle Atlantic, and South Atlantic divisions.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL ESTABLISHMENTS DURING **ONE WEEK** EACH IN MARCH AND APRIL, 1928

Industry	Establishments	Number on pay roll		Per cent of change	Amount of pay roll		Per cent of change
		March, 1928	April, 1928		March, 1928	April, 1928	
Food and kindred products	**1,729**	**221,563**	**216,639**	(1)	**$5,689,051**	**$5,455,577**	(1)
Slaughtering and meat packing	196	86,774	83,355	−3.9	2,237,505	2,114,808	−5.5
Confectionery	311	33,593	31,874	−5.1	619,860	556,204	−10.3
Ice cream	230	9,015	9,728	+7.9	303,005	326,930	+7.9
Flour	328	15,615	15,080	−3.4	418,412	398,435	−4.8
Baking	648	66,152	65,876	−0.4	1,783,860	1,738,706	−2.5
Sugar refining, cane	16	10,414	10,726	+3.0	326,409	320,494	−1.8
Textiles and their products	**1,840**	**597,117**	**578,839**	(1)	**11,656,993**	**10,864,172**	(1)
Cotton goods	475	225,417	219,722	−2.5	3,425,459	3,278,698	−4.3
Hosiery and knit goods	236	81,126	79,340	−2.2	1,575,200	1,487,890	−5.5
Silk goods	180	57,173	54,462	−4.7	1,227,699	1,153,254	−6.1
Woolen and worsted goods	184	60,556	59,221	−2.2	1,313,035	1,259,889	−4.0
Carpets and rugs	29	24,074	23,788	−1.2	630,451	581,911	−7.7
Dyeing and finishing textiles	98	32,480	31,699	−2.4	811,433	771,511	−4.9
Clothing, men's	277	61,928	57,463	−7.2	1,480,710	1,214,217	−18.0
Shirts and collars	94	19,489	18,771	−3.7	316,090	297,713	−5.8
Clothing, women's	191	22,211	21,693	−2.3	577,628	518,445	−10.2
Millinery and lace goods	76	12,663	12,671	+0.1	299,288	300,644	+0.5
Iron and steel and their products	**1,811**	**641,864**	**644,951**	(1)	**19,608,028**	**19,424,534**	(1)
Iron and steel	196	264,526	264,386	−0.1	8,444,983	8,239,876	−2.4
Cast-iron pipe	39	12,099	12,262	+1.3	293,163	293,468	+0.1
Structural ironwork	163	23,896	24,060	+0.6	712,577	721,523	+1.3
Foundry and machine-shop products	990	229,425	231,801	+1.0	6,919,257	6,948,964	+0.4
Hardware	71	31,786	31,206	−1.8	807,642	778,975	−3.5
Machine tools	150	28,835	29,609	+2.7	939,173	970,290	+3.3
Steam fittings and steam and hot-water heating apparatus	109	35,443	35,434	−(2)	1,045,004	1,010,749	−3.3
Stoves	93	15,854	16,223	+2.3	446,229	460,689	+3.2
Lumber and its products	**1,145**	**206,231**	**208,035**	(1)	**4,579,403**	**4,578,164**	(1)
Lumber, sawmills	459	114,268	117,168	+2.5	2,350,412	2,414,009	+2.7
Lumber, millwork	264	30,043	30,812	+2.6	716,620	745,261	+4.0
Furniture	422	61,920	60,055	−3.0	1,512,371	1,418,894	−6.2
Leather and its products	**343**	**115,992**	**110,355**	(1)	**2,721,397**	**2,355,257**	(1)
Leather	135	28,908	27,940	−3.3	734,619	686,503	−6.5
Boots and shoes	208	87,084	82,415	−5.4	1,986,778	1,668,754	−16.0

[1] The per cent of change has not been computed for the reason that the figures in the preceding columns are unweighted and refer only to the establishments reporting; for the weighted per cent of change, wherein proper allowance is made for the relative importance of the several industries, so that the figures may represent all establishments of the country in the industries here represented, see Table 2.

[2] Less than one-tenth of 1 per cent.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL ESTABLISHMENTS DURING **ONE WEEK** EACH IN MARCH AND APRIL, 1928—Continued

Industry	Establishments	Number on pay roll		Per cent of change	Amount of pay roll		Per cent of change
		March, 1928	April, 1928		March, 1928	April, 1928	
Paper and printing	**914**	**180,485**	**178,621**	(1)	**$5,943,510**	**$5,899,506**	(1)
Paper and pulp	212	57,220	56,846	−0.7	1,554,589	1,533,856	−1.3
Paper boxes	180	19,652	19,215	−2.2	436,843	424,635	−2.8
Printing, book and job	311	53,591	52,141	−2.7	1,899,826	1,866,813	−1.7
Printing, newspapers	211	50,022	50,419	+0.8	2,052,252	2,074,202	+1.1
Chemicals and allied products	**358**	**94,587**	**94,082**	(1)	**2,662,222**	**2,673,889**	(1)
Chemicals	131	32,100	31,989	−0.3	898,427	887,996	−1.2
Fertilizers	171	18,036	18,332	+1.6	302,749	313,705	+3.6
Petroleum refining	56	44,451	43,761	−1.6	1,461,046	1,472,188	+0.8
Stone, clay, and glass products	**644**	**104,691**	**107,270**	(1)	**2,735,714**	**2,843,946**	(1)
Cement	97	22,252	22,935	+3.1	633,077	688,362	+8.7
Brick, tile, and terra cotta	363	28,762	30,221	+5.1	721,270	766,869	+6.3
Pottery	70	14,781	14,560	−1.5	398,538	377,156	−5.4
Glass	114	38,896	39,554	+1.7	982,829	1,011,559	+2.9
Metal products, other than iron and steel	**225**	**51,309**	**52,382**	(1)	**1,397,460**	**1,406,505**	(1)
Stamped and enameled ware	70	19,429	19,909	+2.5	487,894	486,969	−0.2
Brass, bronze, and copper products	155	31,880	32,473	+1.9	909,566	919,536	+1.1
Tobacco products	**164**	**42,876**	**41,748**	(1)	**708,692**	**659,941**	(1)
Chewing and smoking tobacco and snuff	27	7,910	7,597	−4.0	117,412	111,162	−5.3
Cigars and cigarettes	137	34,966	34,151	−2.3	591,280	548,779	−7.2
Vehicles for land transportation	**1,226**	**516,420**	**526,763**	(1)	**17,387,859**	**17,633,886**	(1)
Automobiles	207	357,187	366,406	+2.6	12,529,731	12,747,398	+1.7
Carriages and wagons	62	1,556	1,592	+2.3	34,553	34,883	+1.0
Car building and repairing, electric-railroad	394	26,254	26,001	−1.0	826,846	815,076	−1.4
Car building and repairing, steam-railroad	563	131,423	132,764	+1.0	3,996,729	4,036,529	+1.0
Miscellaneous industries	**389**	**246,831**	**246,279**	(1)	**7,373,091**	**7,321,454**	(1)
Agricultural implements	75	27,249	27,280	+0.1	832,073	823,580	−1.0
Electrical machinery, apparatus, and supplies	174	116,845	116,077	−0.7	3,465,653	3,414,086	−1.5
Pianos and organs	38	6,482	6,579	+1.5	188,432	187,482	−0.5
Rubber boots and shoes	12	18,075	18,675	+3.3	431,485	443,235	+2.7
Automobile tires	53	55,641	54,752	−1.6	1,802,221	1,761,029	−2.3
Shipbuilding	37	22,539	22,916	+1.7	653,227	692,042	+5.9
All industries	**10,788**	**3,019,966**	**3,005,964**	(1)	**82,463,420**	**81,116,831**	(1)

Recapitulation by Geographic Divisions

GEOGRAPHIC DIVISION							
New England	1,371	392,650	386,215	−1.6	$9,469,341	$9,229,681	−2.5
Middle Atlantic	2,497	808,880	799,425	−1.2	23,232,342	22,404,191	−3.6
East North Central	2,909	1,037,776	1,040,793	+0.3	32,301,087	32,128,166	−0.5
West North Central	1,001	156,271	155,559	−0.5	4,031,214	3,980,500	−1.3
South Atlantic	1,179	290,548	285,966	−1.6	5,559,298	5,373,403	−3.3
East South Central	532	113,646	113,937	+0.3	2,169,161	2,172,569	+0.2
West South Central	449	83,009	82,676	−0.4	1,779,084	1,764,877	−0.8
Mountain	189	25,700	26,055	+1.4	729,090	749,986	+2.9
Pacific	661	111,486	115,338	+3.5	3,192,803	3,313,458	+3.8
All divisions	**10,788**	**3,019,966**	**3,005,964**	(1)	**82,463,420**	**81,116,831**	(1)

[1] The per cent of change has not been computed for the reason that the figures in the preceding columns are unweighted and refer only to the establishments reporting; for the weighted per cent of change, wherein proper allowance is made for the relative importance of the several industries, so that the figures may represent all establishments of the country in the industries here represented, see Table 2.

TABLE 2.—PER CENTS OF CHANGE, MARCH TO APRIL, 1928—12 GROUPS OF INDUSTRIES AND TOTAL OF ALL INDUSTRIES

[Computed from the index numbers of each group, which are obtained by weighting the index numbers of the several industries of the group, by the number of employees, or wages paid, in the industries]

Group	Per cent of change, March to April, 1928		Group	Per cent of change, March to April, 1928	
	Number on pay roll	Amount of pay roll		Number on pay roll	Amount of pay roll
Food and kindred products	−2.1	−4.2	Metal products, other than iron and steel	+2.0	+0.8
Textiles and their products	−3.1	−7.4	Tobacco products	−2.7	−7.0
Iron and steel and their products	+0.6	−0.8	Vehicles for land transportation	+1.6	+1.3
Lumber and its products	+1.3	+0.8	Miscellaneous industries	+0.3	+1.8
Leather and its products	−4.8	−13.1			
Paper and printing	−1.0	−0.7	**All industries**	**−0.5**	**−1.4**
Chemicals and allied products	−0.2	+0.3			
Stone, clay, and glass products	+2.4	+3.2			

Comparison of Employment and Pay-roll Totals in April, 1928, with April, 1927

THE level of employment in manufacturing industries in April, 1928, was 5.4 per cent lower than in April, 1927, and pay-roll totals were 6.9 per cent lower. According to reports made to the bureau the observance of Easter holidays was more marked in 1928 than has been customary, and accounts, at least in part, for the larger decrease in pay-roll totals.

Decreased employment over this 12-month period appeared in each of the 12 groups of industries, the group of miscellaneous industries leading with a falling off of over 14 per cent, followed by the stone-clay-glass group (8.9 per cent), iron and steel (6.8 per cent), and textiles (5.2 per cent). The groups least affected by declines in employment were vehicles and food, each of which fell off only one-half of 1 per cent.

The notable increases in employment in separate industries over this interval were in the agricultural implement, automobile, and fertilizer industries, while the pronounced decreases were in the shipbuilding, petroleum refining, brick, cement, piano, cast-iron pipe, and steam fittings industries.

The East North Central division alone of the nine geographic divisions had more employees in April, 1928, than in April, 1927. Of the remaining divisions the New England, Middle Atlantic, and West South Central divisions show losses in employment of from 8.7 to 7.2 per cent each.

TABLE 3.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS, APRIL, 1928, WITH APRIL, 1927

[The per cents of change for each of the 12 groups of industries and for the total of all industries are weighted in the same manner as are the per cents of change in Table 2]

Industry	Per cent of change, April, 1928, compared with April, 1927	
	Number on pay roll	Amount of pay roll
Food and kindred products	−0.5	−1.2
Slaughtering and meat packing	+1.7	+0.9
Confectionery	−2.8	−6.2
Ice cream	−2.2	−1.8
Flour	+2.8	+4.3
Baking	−1.3	−2.8
Sugar refining, cane	−7.2	−3.8
Textiles and their products	−5.2	−9.4
Cotton goods	−7.9	−16.9
Hosiery and knit goods	−4.3	−8.4
Silk goods	−4.2	+0.6
Woolen and worsted goods	−7.4	−10.6
Carpets and rugs	−2.0	−10.6
Dyeing and finishing textiles	−2.4	−4.9
Clothing, men's	−5.3	−10.2
Shirts and collars	−1.0	−5.9
Clothing, women's	−3.2	−6.5
Millinery and lace goods	+1.4	+0.5
Iron and steel and their products	−6.8	−7.5
Iron and steel	−6.1	−8.8
Cast-iron pipe	−13.1	−16.1
Structural ironwork	−5.3	+0.3
Foundry and machine-shop products	−7.5	−7.2
Hardware	−8.2	−10.3
Machine tools	−1.9	+6.5
Steam fittings and steam and hot-water heating apparatus	−10.3	−12.9
Stoves	−7.2	−10.5
Lumber and its products	−4.2	−3.6
Lumber, sawmills	−4.0	−1.3
Lumber, millwork	−5.4	−4.6
Furniture	−4.3	−9.6
Leather and its products	−4.8	−12.2
Leather	−1.6	−3.1
Boots and shoes	−6.0	−16.2
Paper and printing	−2.1	−0.6
Paper and pulp	−4.7	−3.1
Paper boxes	−3.4	−1.4
Paper and printing—Contd.		
Printing, book and job	−3.5	−1.2
Printing, newspapers	+1.5	+2.1
Chemicals and allied products	−5.0	−6.1
Chemicals	−1.8	−0.9
Fertilizers	+8.4	+3.7
Petroleum refining	−17.6	−16.2
Stone, clay, and glass products	−8.9	−9.5
Cement	−10.4	−10.8
Brick, tile, and terra cotta	−15.2	−17.7
Pottery	−3.4	−6.5
Glass	−4.1	−3.3
Metal products, other than iron and steel	−3.9	+0.1
Stamped and enameled ware	−0.8	−1.0
Brass, bronze, and copper products	−5.3	+0.4
Tobacco products	−2.0	−5.6
Chewing and smoking tobacco and snuff	+1.4	−0.2
Cigars and cigarettes	−2.4	−6.3
Vehicles for land transportation	−0.5	+0.1
Automobiles	+8.3	+8.9
Carriages and wagons	−4.0	−8.9
Car building and repairing, electric-railroad	−3.6	−1.4
Car building and repairing, steam-railroad	−8.1	−7.7
Miscellaneous industries	−14.4	−17.2
Agricultural implements	+12.5	+16.5
Electrical machinery, apparatus, and supplies	−5.7	−6.4
Pianos and organs	−11.0	−11.2
Rubber boots and shoes	+1.5	−3.2
Automobile tires	−2.6	−3.3
Shipbuilding	−28.6	−30.0
All industries	−5.4	−6.9

Recapitulation by Geographic Divisions

GEOGRAPHIC DIVISION		
New England	−8.7	−9.9
Middle Atlantic	−8.0	−10.2
East North Central	+1.3	+1.5
West North Central	−1.1	−1.2
South Atlantic	−4.6	−7.9
East South Central	−2.9	−4.5
West South Central	−7.2	−6.4
Mountain	−3.3	−1.6
Pacific	−1.0	−0.2
All divisions	−5.4	−6.9

Per Capita Earnings

PER CAPITA earnings in April, 1928, for employees in the combined 54 industries surveyed were 0.9 per cent lower than in March, 1928, and 1.6 per cent lower than in April, 1927.

Increases in per capita earnings in April, 1928, as compared with March, 1928, are shown in only 14 of the 54 industries, but, as already stated, pay-roll totals in April are considerably affected by the custom, prevailing in many localities, of closing down operations at Easter. The pronounced increases were in the cement, shipbuilding, petroleum refining, and fertilizer industries; the most notable decreases were in the clothing (both men's and women's), boots and shoes, carpet, confectionery, cigar, and sugar refining industries.

Employees in 21 industries were averaging greater earnings in April, 1928, than in April, 1927, machine tools showing the most pronounced increase (8.4 per cent), with brass-bronze-copper products and structural ironwork following with increases of less than 6 per cent each; silk goods showed an increase of 4.8 per cent, and sugar and agricultural implements an increase of about 3.5 per cent each.

The outstanding decrease in per capita earnings over this 12-month period was 11 per cent in the boot and shoe industry, while cotton goods employees were averaging 9.8 per cent lower earnings in April, 1928, and carpet employees 8.8 per cent lower earnings.

TABLE 4.—COMPARISON OF PER CAPITA EARNINGS, APRIL, 1928, WITH MARCH, 1928, AND APRIL, 1927

Industry	Per cent of change, April, 1928, compared with—		Industry	Per cent of change, April, 1928, compared with—	
	March, 1928	April, 1927		March, 1928	April, 1927
Cement	+5.5	−0.1	Agricultural implements	−1.1	+3.5
Shipbuilding	+4.2	−1.9	Cast-iron pipe	−1.2	−3.4
Petroleum refining	+2.3	+1.5	Carriages and wagons	−1.4	−5.3
Fertilizers	+1.9	−4.2	Chewing and smoking tobacco and snuff	−1.4	−1.8
Lumber, millwork	+1.4	+0.8	Flour	−1.4	+1.6
Brick, tile, and terra cotta	+1.2	−3.1	Silk goods	−1.4	+4.8
Glass	+1.2	+0.8	Slaughtering and meat packing	−1.6	−0.8
Printing, book and job	+1.0	+2.5	Cotton goods	−1.8	−9.8
Stoves	+0.9	−3.2	Hardware	−1.8	−2.4
Structural ironwork	+0.7	+5.7	Woolen and worsted goods	−1.9	−3.6
Machine tools	+0.6	+8.4	Pianos and organs	−2.0	−0.5
Millinery and lace goods	+0.4	−0.8	Baking	−2.2	−1.6
Printing, newspapers	+0.3	+0.8	Shirts and collars	−2.2	−4.6
Lumber, sawmills	+0.1	+2.4	Iron and steel	−2.3	−2.8
Ice cream	(1)	+0.5	Dyeing and finishing textiles	−2.6	−2.6
Car building and repairing, steam-railroad	−(2)	+0.7	Stamped and enameled ware	−2.6	−0.6
Car building and repairing, electric-railroad	−0.4	+2.1	Furniture	−3.2	−5.1
Foundry and machine-shop products	−0.6	+0.2	Leather	−3.3	−1.5
Paper boxes	−0.6	+1.9	Steam fittings and steam and hot-water heating apparatus	−3.3	−3.0
Rubber boots and shoes	−0.6	−4.8	Hosiery and knit goods	−3.5	−4.6
Automobile tires	−0.7	−0.6	Pottery	−3.9	−3.1
Brass, bronze, and copper products	−0.7	+5.9	Sugar refining, cane	−4.7	+3.6
Paper and pulp	−0.7	+1.3	Cigars and cigarettes	−5.0	−3.9
Automobiles	−0.8	+0.8	Confectionery	−5.4	−3.3
Electrical machinery, apparatus, and supplies	−0.8	−0.9	Carpets and rugs	−6.6	−8.8
Chemicals	−0.8	+0.9	Clothing, women's	−8.1	−3.6
			Boots and shoes	−11.2	−11.0
			Clothing, men's	−11.6	−5.2

[1] No change.

[2] Less than one-tenth of 1 per cent.

Wage Changes

THIRTY-ONE establishments in 14 industries reported wage-rate increases made during the month ending April 15, 1928. These increases averaged 7.8 per cent and affected 1,756 employees, or one-fourth of the total employees in the establishments concerned.

Twenty-nine establishments in 15 industries reported wage-rate decreases made during the same period. These decreases averaged 7.9 per cent and affected 4,582 employees, or 68 per cent of the total number of employees in the establishments concerned.

Ten of the increases reported were in printing establishments and 6 of the decreases were in brick plants.

TABLE 5.—WAGE ADJUSTMENTS OCCURRING BETWEEN MARCH 15 AND APRIL 15, 1928

Industry	Establishments		Per cent of increase or decrease in wage rates		Employees affected		
	Total number reporting	Number reporting increase or decrease in wage rates	Range	Average	Total number	Per cent of employees— In establishments reporting increase or decrease in wage rates	Per cent of employees— In all establishments reporting
Increases							
Baking	648	2	8.0–10.0	8.9	18	12	(1)
Foundry and machine-shop products	990	3	5.0–10.0	8.5	249	50	(1)
Machine tools	150	2	3.0– 3.8	3.0	52	43	(1)
Steam fittings and steam and hot-water heating apparatus	109	1	10.0	10.0	3	10	(1)
Lumber, sawmills	459	1	5.0–10.0	7.5	600	96	1
Lumber, millwork	264	3	5.0–20.0	10.4	91	19	(1)
Furniture	422	1	5.8	5.8	10	5	(1)
Paper boxes	180	1	10.0	10.0	8	5	(1)
Printing, book and job	311	5	2.3–20.0	7.0	73	8	(1)
Printing, newspapers	211	5	3.0– 8.7	7.5	324	29	1
Chemicals	129	2	5.0–10.0	8.6	170	8	1
Brick, tile, and terra cotta	363	1	10.0	10.0	104	99	(1)
Automobiles	207	1	5.0	5.0	19	8	(1)
Car building and repairing, electric-railroad	394	3	1.8– 2.1	1.9	24	18	(1)
Electrical machinery, apparatus and supplies	174	1	9.3	9.3	11	5	(1)
Decreases							
Confectionery	311	1	10.0	10.0	60	100	(1)
Baking	648	1	14.3	14.3	6	21	(1)
Cotton goods	475	3	4.0–10.0	6.6	1,574	95	1
Dyeing and finishing textiles	98	2	10.0	10.0	70	85	(1)
Clothing, men's	277	1	2.0– 5.0	3.5	21	20	(1)
Shirts and collars	94	1	10.0	10.0	101	58	1
Iron and steel	196	1	10.0	10.0	155	95	(1)
Foundry and machine-shop products	990	2	7.0	7.0	25	17	(1)
Lumber, sawmills	459	3	5.0–12.0	9.4	648	53	1
Furniture	422	2	5.0–10.0	8.3	300	100	(1)
Leather	135	1	10.0–11.0	10.5	330	100	1
Boots and shoes	208	2	8.3–12.5	9.6	481	95	1
Brick, tile, and terra cotta	363	6	5.0–25.0	9.8	208	82	1
Stamped and enameled ware	70	1	5.0	5.0	83	25	(1)
Cigars and cigarettes	137	2	0.1– 5.0	4.8	520	100	2

[1] Less than one-half of 1 per cent.

Indexes of Employment and Pay-Roll Totals in Manufacturing Industries

INDEX numbers for April, March, and February, 1928, and for April, 1927, showing relatively the variation in number of persons employed and in pay-roll totals in each of the 54 industries surveyed by the Bureau of Labor Statistics, together with general indexes for the combined 12 groups of industries, appear in Table 6.

The general index of employment for April, 1928, is 85.7, this number being 0.5 per cent lower than the index for March, 1928, 0.2 per cent higher than the index for February, 1928, and 5.4 per cent lower than the index for April, 1927. The general index of pay-roll totals for April, 1928, is 89.9, this number being 1.4 per cent lower than the index for March, 1928, 0.1 per cent lower than the index for February, 1928, and 6.9 per cent lower than the index for April, 1927.

TABLE 6.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, APRIL, 1927, AND FEBRUARY, MARCH, AND APRIL, 1928

[Monthly average, 1923=100]

Industry	Employment				Pay-roll totals			
	1927	1928			1927	1928		
	April	February	March	April	April	February	March	April
General index	**90.6**	**85.5**	**86.1**	**85.7**	**96.6**	**90.0**	**91.2**	**89.9**
Food and kindred products	**86.0**	**87.9**	**87.4**	**85.6**	**90.0**	**93.7**	**92.8**	**88.9**
Slaughtering and meat packing	77.5	83.9	82.0	78.8	80.0	89.1	85.4	80.7
Confectionery	75.9	79.5	77.7	73.8	82.2	87.2	85.9	77.1
Ice cream	87.9	76.3	79.7	86.0	95.1	83.0	86.5	93.4
Flour	82.4	87.5	87.7	84.7	83.5	90.5	91.5	87.1
Baking	101.0	99.4	100.2	99.7	106.5	105.4	106.2	103.5
Sugar refining, cane	93.0	82.1	83.8	86.3	94.5	87.4	92.6	90.9
Textiles and their products	**88.3**	**87.1**	**86.4**	**83.7**	**88.9**	**88.1**	**86.9**	**80.5**
Cotton goods	87.6	84.2	82.7	80.7	89.1	79.4	77.3	74.0
Hosiery and knit goods	98.3	97.0	96.2	94.1	114.8	112.2	111.2	105.1
Silk goods	101.2	100.7	101.8	97.0	106.0	111.1	113.5	106.6
Woolen and worsted goods	79.7	78.1	75.4	73.8	77.4	77.3	72.1	69.2
Carpets and rugs	97.8	97.3	96.9	95.8	95.0	90.9	92.0	84.9
Dyeing and finishing textiles	100.1	101.1	100.1	97.7	105.8	105.7	105.8	100.6
Clothing, men's	79.6	82.6	81.2	75.4	67.4	77.1	73.8	60.5
Shirts and collars	79.0	81.7	81.2	78.2	81.6	81.7	81.5	76.8
Clothing, women's	90.6	87.6	89.7	87.7	92.9	95.1	96.7	86.9
Millinery and lace goods	73.5	73.4	74.5	74.5	78.5	76.5	78.5	78.9
Iron and steel and their products	**89.4**	**81.5**	**82.8**	**83.3**	**96.4**	**87.9**	**89.9**	**89.2**
Iron and steel	95.3	87.9	89.6	89.5	104.9	96.0	98.0	95.7
Cast-iron pipe	99.8	82.5	85.6	86.7	103.5	80.3	86.7	86.8
Structural ironwork	94.2	89.5	88.7	89.2	97.9	97.3	96.9	98.2
Foundry and machine-shop products	85.0	76.6	77.9	78.6	88.7	79.6	82.0	82.3
Hardware	84.1	78.5	78.6	77.2	94.0	89.2	87.3	84.3
Machine tools	98.8	92.4	94.4	96.9	107.8	106.4	111.1	114.8
Steam fittings and steam and hot-water heating apparatus	91.0	80.4	81.6	81.6	96.2	86.6	86.6	83.8
Stoves	80.4	71.5	72.9	74.6	83.1	72.6	72.1	74.4
Lumber and its products	**82.8**	**77.0**	**78.3**	**79.3**	**89.5**	**82.9**	**85.6**	**86.3**
Lumber, sawmills	78.3	71.6	73.4	75.2	84.2	77.1	80.9	83.1
Lumber, millwork	89.0	81.9	82.1	84.2	95.0	85.2	87.1	90.6
Furniture	94.4	92.8	93.1	90.3	104.4	101.4	100.7	94.4
Leather and its products	**87.1**	**87.7**	**87.1**	**82.9**	**84.2**	**86.1**	**85.0**	**73.9**
Leather	88.8	91.1	90.4	87.4	89.9	93.1	93.2	87.1
Boots and shoes	86.6	86.6	86.0	81.4	81.9	83.3	81.7	68.6
Paper and printing	**103.6**	**103.3**	**102.4**	**101.4**	**113.0**	**113.0**	**113.1**	**112.3**
Paper and pulp	94.2	90.4	90.4	89.8	100.2	98.2	98.3	97.1
Paper boxes	95.3	94.3	94.2	92.1	105.0	104.2	106.5	103.5
Printing, book and job	104.1	106.5	103.2	100.5	115.9	117.2	116.4	114.5
Printing, newspapers	116.0	116.6	116.8	117.7	124.6	125.4	125.8	127.2

TABLE 6.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, APRIL, 1927, AND FEBRUARY, MARCH, AND APRIL, 1928—Continued

[Monthly average, 1923=100]

Industry	Employment				Pay-roll totals			
	1927	1928			1927	1928		
	April	February	March	April	April	February	March	April
Chemicals and allied products	**105.2**	**93.6**	**100.1**	**99.9**	**109.5**	**98.2**	**102.5**	**102.8**
Chemicals	96.7	95.7	95.3	95.0	108.8	108.3	109.1	107.8
Fertilizers	142.3	109.2	151.8	154.2	144.9	111.3	145.1	150.3
Petroleum refining	100.3	83.8	83.9	82.6	100.4	83.6	83.5	84.1
Stone, clay, and glass products	**97.8**	**84.0**	**87.0**	**89.1**	**105.8**	**89.6**	**92.7**	**95.7**
Cement	88.2	74.5	76.6	79.0	94.8	75.6	77.8	84.6
Brick, tile, and terra cotta	99.7	76.7	80.4	84.5	104.2	76.3	80.7	85.8
Pottery	105.7	104.9	103.6	102.1	120.3	119.2	118.9	112.5
Glass	96.4	87.0	90.9	92.4	106.3	96.5	99.9	102.8
Metal products, other than iron and steel	**93.9**	**86.8**	**88.4**	**90.2**	**91.3**	**89.7**	**90.7**	**91.4**
Stamped and enameled ware	88.2	82.1	85.4	87.5	86.7	84.0	85.9	85.8
Brass, bronze, and copper products	96.5	89.0	89.7	91.4	93.0	91.8	92.4	93.4
Tobacco products	**81.6**	**81.4**	**82.2**	**80.0**	**79.0**	**79.3**	**80.2**	**74.6**
Chewing and smoking tobacco and snuff	90.6	99.3	95.7	91.9	91.3	104.6	96.2	91.1
Cigars and cigarettes	80.4	79.1	80.4	78.5	77.6	76.3	78.3	72.7
Vehicles for land transportation	**86.8**	**82.7**	**85.0**	**86.4**	**93.1**	**88.3**	**92.0**	**93.2**
Automobiles	106.9	108.2	112.9	115.8	115.8	117.4	124.0	126.1
Carriages and wagons	73.3	67.2	68.8	70.4	80.8	71.6	72.8	73.6
Car building and repairing, electric-railroad	89.5	87.1	87.2	86.3	91.9	88.9	91.9	90.6
Car building and repairing, steam-railroad	74.2	66.6	67.5	68.2	78.9	70.1	72.0	72.8
Miscellaneous industries	**101.8**	**87.7**	**86.8**	**87.1**	**113.3**	**92.0**	**92.1**	**93.8**
Agricultural implements	93.8	102.2	105.4	105.5	107.8	121.2	126.8	125.6
Electrical machinery, apparatus, and supplies	93.5	88.2	88.8	88.2	100.2	93.4	95.2	93.8
Pianos and organs	84.5	76.3	74.1	75.2	87.4	76.1	78.0	77.6
Rubber boots and shoes	86.4	92.9	84.9	87.7	97.5	101.6	91.9	94.4
Automobile tires	111.8	109.4	110.6	108.9	121.5	118.8	120.2	117.5
Shipbuilding	107.4	77.9	75.5	76.7	119.5	80.1	79.0	83.7

Table 7 shows the general index of employment in manufacturing industries and the general index of pay-roll totals, by months, from January, 1923, to April, 1928.

Preceding Table 7 is a chart which represents the 54 industries combined and shows, by months, the course of pay-roll totals as well as the course of employment during the years 1924, 1925, 1926, and 1927, and also through January, February, March, and April, 1928.

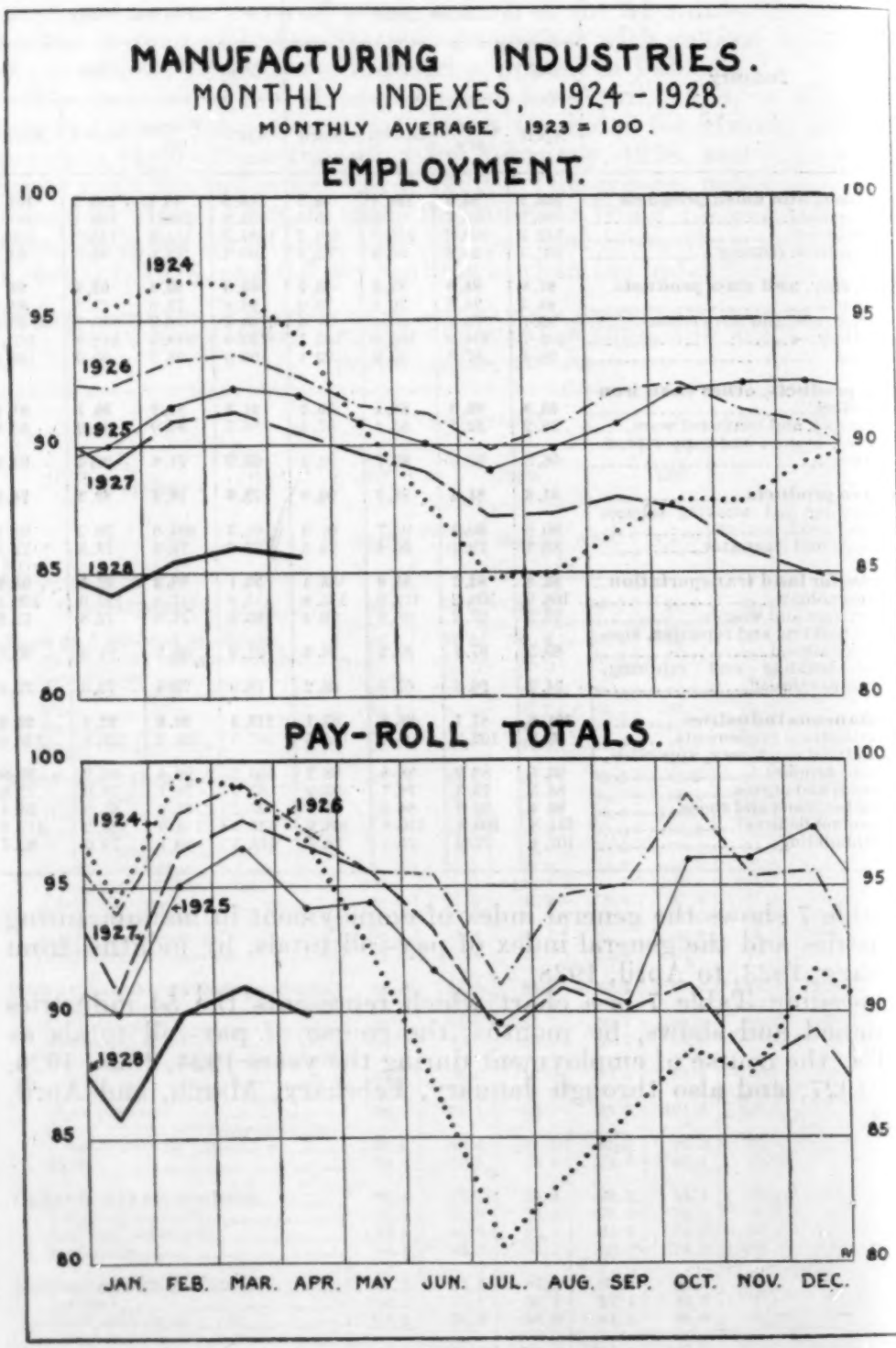

MANUFACTURING INDUSTRIES.
MONTHLY INDEXES, 1924-1928.
MONTHLY AVERAGE 1923 = 100.
EMPLOYMENT.
100
95
90
85
80
1924
1926
1925
1927
1928
PAY-ROLL TOTALS.
JAN. FEB. MAR. APR. MAY JUN. JUL. AUG. SEP. OCT. NOV. DEC.

TABLE 7.—GENERAL INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, JANUARY, 1923, TO APRIL, 1928

[Monthly average, 1923=100]

Month	Employment						Pay-roll totals					
	1923	1924	1925	1926	1927	1928	1923	1924	1925	1926	1927	1928
January	98.0	95.4	90.0	92.3	89.4	84.2	91.8	94.5	90.0	93.9	90.9	85.8
February	99.6	96.6	91.6	93.3	91.0	85.5	95.2	99.4	95.1	97.9	96.4	90.0
March	101.8	96.4	92.3	93.7	91.4	86.1	100.3	99.0	96.6	99.1	97.7	91.2
April	101.8	94.5	92.1	92.8	90.6	85.7	101.3	96.9	94.2	97.2	96.6	89.9
May	101.8	90.8	90.9	91.7	89.7	-------	104.8	92.4	94.4	95.6	95.6	-------
June	101.9	87.9	90.1	91.3	89.1	-------	104.7	87.0	91.7	95.5	93.3	-------
July	100.4	84.8	89.3	89.8	87.3	-------	99.9	80.8	89.6	91.2	89.1	-------
August	99.7	85.0	89.9	90.7	87.4	-------	99.3	83.5	91.4	94.6	91.0	-------
September	99.8	86.7	90.9	92.2	88.0	-------	100.0	86.0	90.4	95.1	90.1	-------
October	99.3	87.9	92.3	92.5	87.6	-------	102.3	88.5	96.2	98.6	91.2	-------
November	98.7	87.8	92.5	91.4	85.9	-------	101.0	87.6	96.2	95.4	87.8	-------
December	96.9	89.4	92.6	90.9	85.1	-------	98.9	91.7	97.3	95.6	89.3	-------
Average	**100.0**	**90.3**	**91.2**	**91.9**	**88.5**	[1] 85.4	**100.0**	**90.6**	**93.6**	**95.8**	**92.4**	[1] 89.2

[1] Average for 4 months.

Proportion of Time Worked and Force Employed in Manufacturing Industries in April, 1928

REPORTS as to time worked and force employed in April were received from 9,314 establishments. Employees in 76 per cent of these establishments were working full time and employees in 23 per cent were working part time, while the remaining 1 per cent of the establishments were idle; 29 per cent of the establishments had a full normal force of employees and 70 per cent were operating with reduced forces.

The establishments in operation were employing an average of 86 per cent of a full normal force of employees who were working an average of 96 per cent of full time. These percentages are unchanged from those given in the March report.

TABLE 8.—ESTABLISHMENTS WORKING FULL AND PART TIME AND EMPLOYING FULL AND PART WORKING FORCE IN APRIL, 1928

Industry	Establishments reporting		Operating establishments only					
			Per cent of establishments in which employees worked—		Average per cent of full time worked in establishments operating	Per cent of establishments operating with—		Average per cent of full normal force employed in establishments operating
	Total number	Per cent idle	Full time	Part time		Full normal force	Part normal force	
Food and kindred products	**1,496**	[1]	**81**	**18**	**96**	**31**	**69**	**85**
Slaughtering and meat packing	156	------	86	14	98	42	58	88
Confectionery	257	------	59	41	90	7	93	68
Ice cream	191	1	98	1	100	5	95	71
Flour	283	1	67	32	90	35	65	88
Baking	598	[1]	91	9	99	44	56	92
Sugar refining, cane	11	------	73	27	92	18	82	89
Textiles and their products	**1,502**	**1**	**69**	**31**	**93**	**33**	**66**	**87**
Cotton goods	427	[1]	57	43	90	32	67	87
Hosiery and knit goods	178	------	74	26	95	38	62	90
Silk goods	164	------	77	23	97	48	52	95
Woolen and worsted goods	157	1	71	28	93	28	71	80
Carpets and rugs	24	------	67	33	94	42	58	95
Dyeing and finishing textiles	89	------	53	47	91	28	72	89
Clothing, men's	202	2	68	30	92	22	76	80
Shirts and collars	72	------	72	28	95	32	68	89
Clothing, women's	130	1	91	8	98	41	58	96
Millinery and lace goods	59	2	80	19	97	32	66	89

[1] Less than one-half of 1 per cent.

TABLE 8.—ESTABLISHMENTS WORKING FULL AND PART TIME AND EMPLOYING FULL AND PART WORKING FORCE IN APRIL, 1928—Continued

Industry	Establishments reporting		Operating establishments only					
			Per cent of establishments in which employees worked—		Average per cent of full time worked in establishments operating	Per cent of establishments operating with—		Average per cent of full normal force employed in establishments operating
	Total number	Per cent idle	Full time	Part time		Full normal force	Part normal force	
Iron and steel and their products	**1,626**	(1)	**70**	**30**	**95**	**23**	**77**	84
Iron and steel	155	4	71	25	94	21	75	86
Cast-iron pipe	35	------	63	37	92	26	74	80
Structural ironwork	156	1	80	19	97	19	80	83
Foundry and machine-shop products	899	(1)	69	31	95	21	78	81
Hardware	56	------	55	45	94	13	88	82
Machine tools	136	------	86	14	99	29	71	88
Steam fittings and steam and hot-water heating apparatus	104	------	63	38	93	28	72	84
Stoves	85	------	55	45	91	32	68	88
Lumber and its products	**1,035**	**1**	**70**	**28**	**95**	**24**	**75**	**83**
Lumber, sawmills	424	2	86	11	97	25	72	82
Lumber, millwork	232	1	65	34	95	16	83	77
Furniture	379	1	56	44	92	27	72	87
Leather and its products	**294**	(1)	**73**	**27**	**94**	**28**	**71**	**86**
Leather	115	------	90	10	98	29	71	85
Boots and shoes	179	1	62	37	91	28	72	86
Paper and printing	**733**	(1)	**88**	**12**	**98**	**45**	**55**	**95**
Paper and pulp	165	1	85	14	98	36	63	92
Paper boxes	149	1	66	33	94	19	80	84
Printing, book and job	261	------	95	5	100	48	52	97
Printing, newspapers	158	------	100	------	100	73	27	102
Chemicals and allied products	**296**	(1)	**85**	**15**	**100**	**40**	**60**	**85**
Chemicals	106	1	86	13	98	38	61	92
Fertilizers	156	------	82	18	101	47	53	94
Petroleum refining	34	------	97	3	100	15	85	76
Stone, clay, and glass products	**564**	**4**	**81**	**16**	**97**	**23**	**73**	**84**
Cement	86	1	95	3	100	16	83	78
Brick, tile, and terra cotta	326	6	76	18	97	19	75	89
Pottery	66	3	68	29	95	35	62	94
Glass	86	------	93	7	98	35	65	90
Metal products, other than iron and steel	**194**	------	**77**	**23**	**97**	**35**	**65**	**90**
Stamped and enameled ware	56	------	89	11	99	45	55	92
Brass, bronze, and copper products	138	------	72	28	96	31	69	89
Tobacco products	**142**	**1**	**61**	**37**	**93**	**25**	**73**	**90**
Chewing and smoking tobacco and snuff	25	------	80	20	96	36	64	91
Cigars and cigarettes	117	2	57	41	92	23	75	89
Vehicles for land transportation	**1,110**	(1)	**85**	**15**	**99**	**26**	**74**	**90**
Automobiles	182	------	86	14	98	32	68	94
Carriages and wagons	57	2	67	32	95	21	77	74
Car building and repairing, electric-railroad	361	------	95	5	99	36	64	93
Car building and repairing, steam-railroad	510	(1)	80	20	98	18	82	81
Miscellaneous industries	**322**	------	**78**	**22**	**97**	**31**	**69**	**84**
Agricultural implements	68	------	68	32	94	35	65	97
Electrical machinery, apparatus, and supplies	140	------	83	17	99	33	67	83
Pianos and organs	29	------	55	45	92	24	76	71
Rubber boots and shoes	12	------	58	42	92	33	67	92
Automobile tires	46	------	91	9	99	28	72	91
Shipbuilding	27	------	89	11	99	19	81	62
All industries	**9,314**	**1**	**76**	**23**	**96**	**29**	**70**	**86**

[1] Less than one-half of 1 per cent.

Employment on Class I Steam Railroads in the United States

THE monthly trend of employment from January, 1923, to March, 1928, on Class I railroads—that is, all roads having operating revenues of $1,000,000 or over—is shown by the index numbers published in Table 1. These index numbers are constructed from monthly reports of the Interstate Commerce Commission, using the monthly average for 1923 as 100.

TABLE 1.—INDEX OF EMPLOYMENT ON CLASS I STEAM RAILROADS IN THE UNITED STATES—JANUARY, 1923, TO MARCH, 1928

[Monthly average, 1923=100]

Month	1923	1924	1925	1926	1927	1928
January	94.6	93.1	91.9	92.1	91.8	85.8
February	94.8	93.2	91.7	92.3	91.6	85.5
March	96.6	93.6	91.5	92.9	92.1	86.4
April	98.0	95.0	92.8	95.0	93.6	----------
May	100.9	95.3	94.0	96.3	95.5	----------
June	102.9	94.2	94.8	97.6	97.0	----------
July	104.0	94.3	95.5	98.9	97.1	----------
August	105.1	95.1	95.8	98.7	95.6	----------
September	103.6	95.8	96.0	98.8	95.2	----------
October	103.1	96.9	96.8	99.4	95.0	----------
November	101.1	95.1	95.2	97.3	92.0	----------
December	95.5	92.3	93.3	94.4	88.3	----------
Average	100.0	94.5	94.1	96.1	93.7	[1] 85.9

[1] Average for 3 months.

Table 2 shows the total number of employees on the 15th day each of March, 1927, February and March, 1928, and pay-roll totals for each of the entire months considered, by principal occupational groups and various important occupations.

In these tabulations data for the occupational group reported as "executives, officials, and staff assistants" are omitted.

EMPLOYMENT AND TOTAL MONTHLY EARNINGS OF RAILROAD EMPLOYEES—MARCH, 1927, AND FEBRUARY AND MARCH, 1928

[From monthly reports of Interstate Commerce Commission. As data for only the more important occupations are shown separately, the group totals are not the sum of the items under the respective groups]

Occupation	Number of employees at middle of month			Total earnings		
	March, 1927	February, 1928	March, 1928	March, 1927	February, 1928	March, 1928
Professional, clerical, and general	**283,207**	**271,818**	**271,582**	**$39,852,124**	**$38,267,873**	**$39,602,717**
Clerks	165,195	155,933	155,740	22,080,666	20,671,125	21,638,405
Stenographers and typists	25,475	24,699	24,741	3,216,741	3,125,116	3,225,227
Maintenance of way and structures	**371,624**	**329,452**	**344,062**	**35,611,853**	**29,871,638**	**33,703,817**
Laborers, extra gang and work train	51,582	38,277	44,272	3,986,562	2,606,479	3,401,504
Laborers, track and roadway section	189,456	168,998	176,687	14,164,721	11,402,057	13,441,003

EMPLOYMENT AND TOTAL MONTHLY EARNINGS OF RAILROAD EMPLOYEES—MARCH, 1927, AND FEBRUARY AND MARCH, 1928—Continued

Occupation	Number of employees at middle of month			Total earnings		
	March, 1927	February, 1928	March, 1928	March, 1927	February, 1928	March, 1928
Maintenance of equipment and stores	**502,287**	**466,490**	**466,612**	**$69,435,998**	**$59,062,209**	**$63,775,615**
Carmen	107,454	99,018	99,905	16,925,578	14,093,144	15,492,172
Machinists	59,913	56,906	56,714	10,087,522	8,561,092	9,324,714
Skilled trades helpers	110,275	101,747	101,843	13,037,392	10,869,511	11,841,856
Laborers (shops, engine houses, power plants, and stores)	42,537	39,320	39,151	4,147,132	3,604,074	3,803,607
Common laborers (shops, engine houses, power plants, and stores)	57,819	53,241	52,978	4,966,076	4,097,319	4,488,363
Transportation, other than train, engine, and yard	**206,308**	**195,613**	**196,547**	**25,893,616**	**23,702,681**	**25,099,750**
Station agents	30,475	30,045	29,978	4,835,432	4,591,430	4,828,576
Telegraphers, telephoners, and towermen	25,097	23,475	23,378	3,893,995	3,473,768	3,698,565
Truckers (stations, warehouses, and platforms)	38,667	33,195	34,343	3,706,796	3,015,428	3,387,217
Crossing and bridge flagmen and gatemen	21,964	21,455	21,347	1,694,297	1,637,760	1,646,054
Transportation (yard masters, switch tenders, and hostlers)	**23,912**	**22,444**	**22,375**	**4,572,894**	**4,236,398**	**4,377,098**
Transportation, train and engine	**326,348**	**305,584**	**308,270**	**66,639,719**	**58,839,303**	**63,248,957**
Road conductors	36,656	34,353	34,778	8,963,312	7,799,576	8,377,309
Road brakemen and flagmen	74,230	68,511	69,205	13,148,270	11,228,372	12,109,151
Yard brakemen and yard helpers	55,002	51,306	51,656	9,830,689	8,785,954	9,439,897
Road engineers and motormen	43,710	40,946	41,346	11,667,111	10,487,908	11,274,307
Road firemen and helpers	44,769	41,967	42,152	8,909,546	7,782,953	8,364,373
Total, all employees	**1,713,686**	**1,591,401**	**1,609,448**	**242,006,204**	**213,930,102**	**229,807,954**

Changes in Employment and Pay Rolls in Various States

THE various State labor offices have furnished reports from which the following data has been compiled regarding changes in employment and pay rolls:

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES

Monthly period

State and industry group	Per cent of change, February to March, 1928	
	Employment	Pay roll
Illinois		
Stone, clay, and glass products	+8.0	+11.5
Metals, machinery, and conveyances	+3.7	+1.9
Wood products	+1.3	+.7
Furs and leather goods	−3.0	−7.9
Chemicals, oils, paints, etc	+1.3	+.1
Printing and paper goods	−6.0	−4.6
Textiles	−3.9	+.7
Clothing, millinery, and laundering	−1.8	−7.6
Food, beverages, and tobacco	−.7	−2.4
All manufacturing industries	+1.2	−.3
Trade, wholesale and retail	−6.9	−6.1
Public utilities	+.2	−2.2
Coal mining	−.5	+15.0
Building and contracting	+16.3	+8.2
All industries	+.7	−.1
	March to April, 1928	
Iowa		
Food and kindred products	−5.9	
Textiles	−1.0	
Iron and steel works	−.9	
Lumber products	+3.0	
Leather products	−6.4	
Paper products, printing and publishing	−3.7	
Patent medicines, chemicals, and compounds	+3.2	
Stone and clay products	+21.0	
Tobacco and cigars	−5.0	
Railway car shops	+.2	
Various industries	+1.3	
All industries	−.5	
Maryland		
Food products	−2.6	−7.8
Textiles	−1.7	−9.9
Iron and steel and their products	+.9	+1.6
Lumber and its products	−9.0	−15.1
Leather and its products	−12.4	−24.3
Rubber tires	+.7	+13.7
Paper and printing	−.1	−8.7
Chemicals and allied products	+9.1	+7.0

State and industry group	Per cent of change, March to April, 1928	
	Employment	Pay roll
Maryland—Continued		
Stone, clay, and glass	+.7	−6.8
Metal products other than iron and steel	−.9	−18.5
Tobacco products	−2.5	+17.0
Machinery (not including transportation equipment)	−1.9	−2.3
Musical instruments	+8.0	−6.6
Transportation equipment	+9.5	+11.7
Miscellaneous	−.2	−10.8
All industries	−.5	−3.9
	Employment—index numbers (1919–1923=100)	
	March, 1928	April, 1928
Massachusetts		
Boots and shoes	74.0	68.5
Bread and other bakery products	101.5	97.9
Cars and general shop construction and repairs, steam railroads	74.6	74.4
Clothing, men's and women's	95.0	93.7
Confectionery	79.5	77.2
Cotton goods	65.8	64.4
Dyeing and finishing textiles	101.9	100.6
Electrical machinery, apparatus, and supplies	101.2	100.1
Foundry and machine-shop products	64.6	64.9
Furniture	106.1	104.1
Hosiery and knit goods	88.1	83.2
Jewelry	100.4	97.7
Leather, tanned, curried, and finished	89.7	84.7
Paper and wood pulp	93.4	93.3
Printing and publishing	104.6	105.0
Rubber footwear	88.9	99.0
Rubber goods, tires and tubes	91.4	87.9
Silk goods	114.2	112.1
Textile machinery and parts	57.6	50.4
Woolen and worsted goods	82.1	80.9
All industries	82.1	80.4

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—Continued

Monthly period—Continued

State and industry group	Per cent of change, February to March, 1928	
	Employment	Pay roll
New Jersey		
Food and kindred products	+0.1	−1.3
Textiles and their products	−3.2	−5.8
Iron and steel and their products		+2.0
Lumber and its products	+.1	+1.8
Leather and its products	−2.9	−1.7
Tobacco products	+2.5	+2.7
Paper and printing	+.9	+2.6
Chemicals and allied products	+.4	−1.5
Stone, clay, and glass products	+.4	−2.9
Metal products other than iron and steel	−1.5	+.4
Vehicles for land transportation	+9.9	+12.5
Miscellaneous	−1.5	−3.2
All industries	−.5	−.9
New York		
Stone, clay, and glass	+3.8	+5.2
Metals and machinery	+.4	+3.2
Wood manufactures	−.5	+2.0
Furs, leather, and rubber goods	+.3	+1.0
Chemicals, oils, paints, etc	+.2	+1.4
Paper	−.7	−1.1
Printing and paper goods	+.3	+4.3
Textiles	−.2	+1.4
Clothing and millinery	+.4	−1.1
Food and tobacco	+2.3	+2.7
Water, light, and power	−2.4	−3.6
All industries	+.4	+2.2
	March to April, 1928	
Oklahoma		
Cottonseed oil mills	−24.2	−32.3
Food production:		
Bakeries	+19.2	+22.0
Confections	−13.0	−17.1
Creameries and dairies	+21.3	+16.6
Flour mills	−4.1	−6.1
Ice and ice cream	+29.3	−.1
Meat and poultry	−2.1	+16.4
Lead and zinc:		
Mines and mills	+18.7	+6.9
Smelters	−2.7	−18.3
Metals and machinery:		
Auto repairs, etc	+5.5	+5.2
Machine shops and foundries	−2.6	−5.3
Tank construction and erection	+63.5	+37.0
Oil industry:		
Producing and gasoline manufacture	+36.6	+39.1
Refineries	−3.9	+14.0
Printing: Job work	+36.1	+37.4
Public utilities:		
Steam railway shops	−3.8	−5.0
Street railways	−1.9	−1.7
Water, light, and power	+7.7	+9.1

State and industry group	Per cent of change, March to April, 1928	
	Employment	Pay roll
Oklahoma—Continued		
Stone, clay, and glass:		
Brick and tile	+10.4	+3.4
Cement and plaster	+2.2	+1.2
Crushed stone	−15.9	−23.2
Glass manufacture	+14.0	+10.7
Textiles and cleaning:		
Textile manufacture	+17.2	+11.9
Laundries, etc	−8.2	−.2
Woodworking:		
Sawmills	+5.9	−4.0
Millwork, etc	+2.4	+8.4
All industries	+5.9	+10.0
	Index numbers (1923–1925=100)	
	March, 1928	April, 1928
Pennsylvania	*Employment*	*Employment*
Metal products	83.5	82.5
Transportation equipment	80.0	73.3
Textile products	105.4	95.2
Foods and tobacco	93.0	92.1
Stone, clay, and glass products	81.0	82.5
Lumber products	73.8	70.0
Chemical products	95.9	95.7
Leather and rubber products	100.5	99.8
Paper and printing	95.2	92.5
All industries	88.6	86.0
	Pay rolls	*Pay rolls*
Metal products	89.8	84.3
Transportation equipment	80.4	69.5
Textile products	112.6	95.3
Foods and tobacco	94.8	87.3
Stone, clay, and glass products	80.2	77.1
Lumber products	76.1	67.0
Chemical products	104.0	105.0
Leather and rubber products	104.6	101.4
Paper and printing	108.8	105.2
All industries	92.0	86.1
	January to February, 1928	
Wisconsin		
Manual		
Agriculture	−3.3	+0.1
Logging	+9.1	+3.1
Mining	−28.8	−1.1
Stone crushing and quarrying	+.8	−8.0
Manufacturing:		
Stone and allied industries	−7.0	−11.4
Metal	+5.7	+20.0
Wood	+2.9	+18.3
Rubber	+1.0	+3.0

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—Continued

Monthly period—Continued

State and industry group	Per cent of change, January to February, 1928	
	Employment	Pay roll
Wisconsin—Continued		
Manual—Continued		
Manufacturing—Continued.		
Leather	−1.2	+7.6
Paper	+3.2	+11.5
Textiles	−3.2	−7.2
Foods	−.3	+1.9
Light and power	−7.0	+2.1
Printing and publishing	−3.3	−5.9
Laundering, cleaning, and dyeing	+1.4	+5.1
Chemical (including soap, glue, and explosives)	−3.1	−.5
All manufacturing	+1.9	+11.4
Construction:		
Building	−16.0	−11.9
Highway	−24.8	−22.5
Railroad	−3.5	+6.0
Marine dredging, sewer digging	−22.0	−29.5
Communication:		
Steam railways	−3.1	−2.3
Electric railways	−.9	+.9
Express, telephone, and telegraph	−1.2	−.1
Wholesale trade	−.7	+1.4
Hotels and restaurants	−.6	———
Nonmanual		
Manufacturing, mines, and quarries	−1.1	−.9
Construction	−.7	−2.3
Communication	−1.3	−.9
Wholesale trade	+2.1	−1.3
Retail trade—Sales force only	−5.8	−4.6
Miscellaneous professional services	+1.0	−2.6
Hotels and restaurants	+1.0	———

Yearly period

State and industry group	Per cent of change, March, 1927, to March, 1928	
	Employment	Pay roll
California		
Stone, clay, and glass products	−8.1	−5.7
Metals, machinery, and conveyances	−11.3	−8.6
Wood manufactures	+4.5	+10.2
Leather and rubber goods	+8.1	+9.7
Chemicals, oils, paints, etc	−21.7	−20.8
Printing and paper goods	+1.9	+3.3
Textiles	−9.8	−8.3
Clothing, millinery, and laundering	0	−2.5
Foods, beverages, and tobacco	+50.8	+31.4
Water, light, and power	−3.1	−.2
Miscellaneous	−1.1	+8.9
All industries	+1.8	−.6
New York		
Stone, clay, and glass	−11.3	−12.1
Metals and machinery	−8.6	−8.4
Wood manufactures	−11.4	−13.3
Furs, leather, and rubber goods	−4.3	−5.5
Chemicals, oils, paints, etc	−3.6	−1.8
Paper	−4.9	−7.0
Printing and paper goods	−2.3	−.4
Textiles	−5.1	−8.8
Clothing and millinery	−5.6	−7.7
Food and tobacco	+.8	+1.9
Water, light, and power	−4.4	−2.7
All industries	−6.1	−6.6

State and industry group	Per cent of change, April, 1927, to April, 1928	
	Employment	Pay roll
Oklahoma		
Cottonseed oil mills	−64.3	−61.3
Food production:		
Bakeries	−15.7	−17.2
Confections	−11.1	−16.1
Creameries and dairies	+13.5	−5.3
Flour mills	−26.7	−27.0
Ice and ice cream	−26.2	−24.0
Meat and poultry	+7.5	+4.7
Lead and zinc.		
Mines and mills	−49.7	−53.4
Smelters	−.4	+1.2
Metals and machinery:		
Auto repairs, etc	−64.1	−61.3
Machine shops and foundries	−32.3	−42.0
Tank construction and erection	−63.5	−74.8
Oil industry:		
Producing and gasoline manufacture	−12.5	−3.9
Refineries	−15.4	−22.2
Printing: Job work	−5.7	−8.7
Public utilities:		
Steam railway shops	−10.2	−3.4
Street railways	−20.4	−10.4
Water, light, and power	−20.0	−17.1
Stone, clay, and glass:		
Brick and tile	−27.6	−23.8
Cement and plaster	−6.2	−5.4
Crushed stone	−3.9	+23.1
Glass manufacture	0	+.2

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—Continued

Yearly period—Continued

State and industry group	Per cent of change, April, 1927, to April, 1928	
	Employment	Pay roll
Oklahoma—Continued		
Textiles and cleaning:		
Textile manufacture	+59.8	+157.9
Laundries, etc	−17.8	−20.4
Woodworking:		
Sawmills	+141.8	+133.4
Millwork, etc	+11.4	+8.5
All industries	−16.9	−18.2
	Index numbers (1923–1925=100)	
	April, 1927	April, 1928
Pennsylvania	*Employment*	*Employment*
Metal products	91.9	82.5
Transportation equipment	94.0	73.3
Textile products	100.8	95.2
Foods and tobacco	82.8	92.1
Stone, clay, and glass products	100.0	82.5
Lumber products	83.9	70.0
Chemical products	107.5	95.7
Leather and rubber products	95.5	99.8
Paper and printing	93.8	92.5
All industries	94.8	86.6
	Pay rolls	*Pay rolls*
Metal products	98.2	84.5
Transportation equipment	95.1	69.8
Textile products	106.6	95.2
Foods and tobacco	86.4	87.3
Stone, clay, and glass products	101.7	77.1
Lumber products	86.6	67.0
Chemical products	117.4	105.4
Leather and rubber products	103.4	101.4
Paper and printing	105.8	105.2
All industries	99.8	86.1

State and industry group	Per cent of change February, 1927, to February, 1928	
	Employment	Pay roll
Wisconsin		
Manual		
Agriculture	−19.4	−57.1
Logging	+6.6	−4.2
Mining	−39.3	−37.4
Stone crushing and quarrying	+4.7	−11.4
Manufacturing:		
Stone and allied industries	+6.7	−10.3
Metal	−9.6	−8.7
Wood	−5.2	−6.1
Rubber	+24.0	+1.1
Leather	−11.7	−6.7
Paper	+4.8	+8.5
Textiles	+2.2	−5.4
Foods	−4.8	−4.4
Light and power	−3.9	−5.0
Printing and publishing	−.6	+.1
Laundering, cleaning and dyeing	+2.0	−4.6
Chemical (including soap, glue and explosives)	−1.7	−1.6
All manufacturing	−4.3	−5.4
Construction:		
Building	−16.1	−11.1
Highway	+58.2	+65.3
Railroad	−.6	−3.9
Marine, dredging, sewer digging	+14.6	+13.3
Communication:		
Steam railways	−5.8	−1.3
Electric railways	−2.6	−3.3
Express, telephone, and telegraph	+16.6	+14.7
Wholesale trade	+.8	−14.5
Hotels and restaurants	−6.8	.....
Nonmanual		
Manufacturing, mines, and quarries	−.1	+1.2
Construction	+1.4	+3.1
Communication	−2.1	−.1
Wholesale trade	+12.8	+9.3
Retail trade—Sales force only	−2.9	+.5
Miscellaneous professional services	+2.7	+2.3
Hotels and restaurants	+18.3	.....

Unemployment of Organized Building-Trades Workers in Massachusetts

THE following information on unemployment of organized building-trades workers in Massachusetts is from a mimeographed statement issued monthly by the State department of labor and industries, based on figures furnished by union officials. Table 1 shows the number and per cent of these workers who were unemployed and the cause of unemployment, on specified dates:

TABLE 1.—NUMBER AND PER CENT OF ORGANIZED BUILDING-TRADES WORKERS UNEMPLOYED IN MASSACHUSETTS ON SPECIFIED DATES, BY CAUSE OF UNEMPLOYMENT

Classification	Date of report			
	Jan. 3, 1928	Feb. 1, 1928	Mar. 1, 1928	Apr. 2, 1928
Number of unions reporting	304	285	289	280
Membership of unions reporting	52,226	50,355	49,553	49,028
Number of members reported as unemployed because of—				
Lack of work or materials	10,870	13,807	14,327	13,183
Strike or lockout	420	32	75	129
Sickness, accident, or old age	1,098	843	827	821
Unfavorable weather	1,790	124	1,673	32
Other reasons	100	1	----------	----------
Total, all causes	14,278	14,807	16,902	14,165
Per cent of members unemployed because of—				
Lack of work or materials	20.8	27.4	28.9	26.9
Strike or lockout	.8	.1	.2	.2
Sickness, accident, or old age	2.1	1.7	1.7	1.7
Unfavorable weather	3.4	.2	3.4	.1
Other reasons	.2	(1)	(1)	(1)
Total, all causes	27.3	29.4	34.1	28.9

[1] Less than one-tenth of 1 per cent.

The table shows that on April 2 the percentage of unemployment from all causes was lower than on either March 1 or February 1, the previous reporting dates. This is said to have been due to weather conditions more favorable to building operations. As in previous months, lack of work or materials caused the greatest amount of unemployment (26.9 per cent). The percentages unemployed because of strikes or lockouts (0.2) and sickness, accident, or old age (1.7) were the same as in March. Unemployment from other causes, including unfavorable weather, was negligible.

TABLE 2.—NUMBER AND PER CENT OF ORGANIZED BUILDING-TRADES WORKERS UNEMPLOYED IN MASSACHUSETTS ON APRIL 2, 1928, IN THE PRINCIPAL OCCUPATIONS

Occupation	Number of unions reporting	Membership	Unemployed, all causes	
			Number	Per cent
Bricklayers, masons, and plasterers	36	6,095	1,794	29.4
Carpenters	94	18,574	4,534	24.4
Electrical workers	16	2,339	574	24.5
Hod carriers and building laborers	19	8,635	3,015	34.9
Lathers	8	356	88	24.7
Painters, decorators, and paperhangers	47	5,701	2,078	36.4
Plumbers, gas fitters, and steam fitters	33	3,646	1,369	37.5
Sheet-metal workers	13	942	155	16.5
Other occupations	14	2,740	558	20.4
All occupations	280	49,028	14,165	28.9

The figures in Table 2 show that unemployment in all of the occupation groups listed was in excess of 20 per cent on April 2, with the exception of the sheet-metal workers, for whom the percentage was 16.5. Plumbers, gas fitters, and steam fitters had the highest percentage of unemployment (37.5), followed closely by the painters, decorators, and paper hangers and by hod carriers and building laborers.

Table 3 gives the percentage of unemployment from all causes, and from lack of work or materials, on the reporting date in each month from April 1, 1927, to April 2, 1928. (The Massachusetts Department of Labor and Industries began the compilation of the monthly statements in April, 1927.)

TABLE 3.—PER CENT OF BUILDING-TRADES WORKERS UNEMPLOYED FROM ALL CAUSES, AND FROM LACK OF WORK OR MATERIALS, ON SPECIFIED DATES, APRIL 1, 1927, TO APRIL 2, 1928

Reporting date	Membership of unions reporting	Per cent of unemployed—	
		From all causes	Owing to lack of work or materials
1927			
Apr. 1	47,565	27.4	24.7
May 2	49,670	19.9	17.8
June 1	48,947	18.4	15.6
July 1	47,627	17.2	15.3
Aug. 1	49,671	14.7	12.4
Sept. 1	50,982	15.3	12.8
Oct. 3	51,529	13.5	11.4
Nov. 1	51,484	13.7	12.0
Dec. 1	49,105	19.1	16.2
1928			
Jan. 3	52,226	27.3	20.4
Feb. 1	50,355	29.4	27.9
Mar. 1	49,553	34.1	28.9
Apr. 2	49,028	28.9	26.8

WHOLESALE AND RETAIL PRICES

Retail Prices of Food in the United States

THE following tables are compiled from monthly reports of actual selling prices[1] received by the Bureau of Labor Statistics from retail dealers.

Table 1 shows for the United States retail prices of food on April 15, 1927, and March 15 and April 15, 1928, as well as the percentage changes in the year and in the month. For example, the retail price per pound of pork chops was 36.9 cents on April 15, 1927; 28.6 cents on March 15, 1928; and 31.3 cents on April 15, 1928. These figures show a decrease of 15 per cent in the year and an increase of 9 per cent in the month.

The cost of the various articles of food combined shows a decrease of 1.0 per cent on April 15, 1928, as compared with April 15, 1927, and an increase of 0.5 per cent on April 15, 1928, as compared with March 15, 1928.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE, APRIL 15, 1928, COMPARED WITH MARCH 15, 1928, AND APRIL 15, 1927

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers]

Article	Unit	Average retail price on—			Per cent of increase (+) or decrease (−) Apr. 15, 1928 compared with—	
		Apr. 15, 1927	Mar. 15, 1928	Apr. 15, 1928	Apr. 15, 1927	Mar. 15, 1928
		Cents	*Cents*	*Cents*		
Sirloin steak	Pound	41.8	44.9	45.3	+8	+1
Round steak	do	36.4	39.1	39.6	+9	+1
Rib roast	do	30.9	33.1	33.5	+8	+1
Chuck roast	do	23.3	25.8	26.1	+12	+1
Plate beef	do	15.2	17.7	17.9	+18	+1
Pork chops	do	36.9	28.6	31.3	−15	+9
Bacon	do	48.1	43.0	42.9	−11	−0.2
Ham	do	56.7	50.5	50.7	−11	+0.4
Lamb, leg of	do	40.0	38.2	39.8	−1	+4
Hens	do	38.9	37.2	37.7	−3	+1
Salmon, canned, red	do	32.7	35.4	35.4	+8	0
Milk, fresh	Quart	14.0	14.2	14.1	+1	−1
Milk, evaporated	15–16 oz. can	11.4	11.2	11.1	−3	−1
Butter	Pound	58.4	57.3	55.1	−6	−4
Oleomargarine (all butter substitutes).	do	28.6	27.4	27.2	−5	−1
Cheese	do	37.1	38.5	38.2	+3	−1
Lard	do	19.1	17.8	17.8	−7	0
Vegetable lard substitute	do	25.1	24.9	24.9	−1	0
Eggs, strictly fresh	Dozen	33.9	37.0	35.8	+6	−3
Bread	Pound	9.4	9.1	9.1	−3	0

[1] In addition to retail prices of food and coal, the bureau publishes the prices of gas and electricity from each of 51 cities for the dates for which these data are secured.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE, APRIL 15, 1928, COMPARED WITH MARCH 15, 1928, AND APRIL 15, 1927—Continued

Article	Unit	Average retail price on—			Per cent of increase (+) or decrease (−) Apr. 15, 1928 compared with—	
		Apr. 15, 1927	Mar. 15, 1928	Apr. 15, 1928	Apr. 15, 1927	Mar. 15, 1928
		Cents	*Cents*	*Cents*		
Flour	Pound	5.5	5.3	5.4	−2	+2
Corn meal	do	5.1	5.2	5.3	+4	+2
Rolled oats	do	9.0	9.0	8.9	−1	−1
Corn flakes	8-oz. pkg	10.2	9.7	9.6	−6	−1
Wheat cereal	28-oz. pkg	25.4	25.6	25.6	+1	0
Macaroni	Pound	20.0	19.9	19.8	−1	−1
Rice	do	10.7	10.1	10.0	−7	−1
Beans, navy	do	9.1	10.7	11.5	+26	+7
Potatoes	do	3.7	3.4	3.5	−5	+3
Onions	do	7.4	6.3	7.4	0	+17
Cabbage	do	5.5	5.2	6.8	+24	+31
Beans, baked	No. 2 can	11.6	11.4	11.4	−2	0
Corn, canned	do	15.8	15.9	15.9	+1	0
Peas, canned	do	17.0	16.7	16.7	−2	0
Tomatoes, canned	do	12.1	11.7	11.7	−3	0
Sugar	Pound	7.3	7.1	7.1	−3	0
Tea	do	77.6	77.4	77.2	−1	−0.3
Coffee	do	48.8	48.8	48.9	+0.2	+0.2
Prunes	do	15.5	13.5	13.6	−12	+1
Raisins	do	14.3	13.6	13.6	−5	0
Bananas	Dozen	34.0	33.8	33.0	−3	−2
Oranges	do	48.3	52.9	55.2	+14	+4
Weighted food index					−1.0	+0.5

Table 2 shows for the United States average retail prices of specified food articles on April 15, 1913, and on April 15 of each year from 1922 to 1928, together with percentage changes in April of each of these specified years, compared with April, 1913. For example, the retail price per pound of lard was 15.8 cents in April, 1913; 16.9 cents in April, 1922; 17.5 cents in April, 1923; 17.2 cents in April, 1924; 23.2 cents in April, 1925; 21.5 cents in April, 1926; 19.1 cents in April, 1927; and 17.8 cents in April, 1928.

As compared with April, 1913, these figures show increases of 7 per cent in April, 1922; 11 per cent in April, 1923; 9 per cent in April, 1924; 47 per cent in April, 1925; 36 per cent in April, 1926; 21 per cent in April, 1927; and 13 per cent in April, 1928.

The cost of the various articles of food combined showed an increase of 55.1 per cent in April, 1928, as compared with April, 1913.

TABLE 2.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE APRIL 15 OF CERTAIN SPECIFIED YEARS COMPARED WITH APRIL 15, 1913

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers]

Article	Average retail price on Apr. 15—								Per cent of increase Apr. 15 of each specified year compared with Apr. 15, 1913						
	1913	1922	1923	1924	1925	1926	1927	1928	1922	1923	1924	1925	1926	1927	1928
	Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*							
Sirloin steak..pound..	25.5	36.4	37.9	39.6	40.4	41.1	41.8	45.3	43	49	55	58	61	64	78
Round steak....do....	22.2	31.4	32.3	33.6	34.6	35.2	36.4	39.6	41	45	51	56	59	64	78
Rib roast.....do....	20.0	27.3	27.8	29.0	29.7	30.2	30.9	33.5	37	39	45	49	51	55	68
Chuck roast....do....	16.2	19.5	19.7	20.9	21.6	22.3	23.3	26.1	20	22	29	33	38	44	61
Plate beef.....do....	12.2	13.0	12.7	13.3	13.8	14.7	15.2	17.9	7	4	9	13	20	25	47
Pork chops.....do....	21.6	33.0	28.4	28.7	36.8	38.3	36.9	31.3	53	31	33	70	77	71	45
Bacon.....do....	26.8	39.7	39.1	36.2	46.6	48.5	48.1	42.9	48	46	35	74	81	79	60
Ham.....do....	26.5	50.7	45.1	44.3	53.5	54.5	56.7	50.7	91	70	67	102	106	114	91
Lamb, leg of....do....	20.2	38.5	36.2	38.8	38.6	37.9	40.0	39.8	91	79	92	91	88	98	97
Hens.....do....	22.2	37.8	36.1	36.1	37.9	40.5	38.9	37.7	70	63	63	71	82	75	70
Salmon, canned, red ..pound..	----	32.4	31.2	31.1	31.2	37.8	32.7	35.4	----	----	----	----	----	----	----
Milk, fresh.....quart..	8.9	12.7	13.6	13.8	13.8	13.9	14.0	14.1	43	53	55	55	56	57	58
Milk, evaporated ..15–16 oz. can..	----	11.1	12.2	11.8	11.2	11.5	11.4	11.1	----	----	----	----	----	----	----
Butter.....pound..	40.4	45.2	57.3	50.1	53.3	50.9	58.4	55.1	12	42	24	32	26	45	36
Oleomargarine (all butter substitutes) ..pound..	----	27.3	28.3	29.3	30.1	30.5	28.6	27.2	----	----	----	----	----	----	----
Cheese.....do....	22.0	32.1	36.3	35.6	36.5	36.5	37.1	38.2	46	65	62	66	66	69	74
Lard.....do....	15.8	16.9	17.5	17.2	23.2	21.5	19.1	17.8	7	11	9	47	36	21	13
Vegetable lard substitute.....pound..	----	22.1	22.6	24.5	25.9	25.7	25.1	24.9	----	----	----	----	----	----	----
Eggs, strictly fresh ..dozen..	25.2	31.7	34.4	32.1	38.1	38.6	33.9	35.8	26	37	27	51	53	35	42
Bread.....pound..	5.6	8.7	8.7	8.7	9.4	9.4	9.4	9.1	55	55	55	68	68	68	63
Flour.....do....	3.3	5.3	4.9	4.6	6.1	6.1	5.5	5.4	61	48	39	85	85	67	64
Corn meal.....do....	2.9	3.9	4.0	4.4	5.5	5.1	5.1	5.3	34	38	52	90	76	76	83
Rolled oats.....do....	----	8.7	8.8	8.8	9.3	9.1	9.0	8.9	----	----	----	----	----	----	----
Corn flakes ..8-oz. package..	----	10.1	9.7	9.7	11.0	11.0	10.2	9.6	----	----	----	----	----	----	----
Wheat cereal ..28-oz. package..	----	25.9	24.6	24.3	24.6	25.4	25.4	25.6	----	----	----	----	----	----	----
Macaroni.....pound..	----	20.0	19.8	19.5	20.4	20.2	20.0	19.8	----	----	----	----	----	----	----
Rice.....do....	8.6	9.4	9.4	9.8	11.0	11.7	10.7	10.0	9	9	14	28	36	24	16
Beans, Navy....do....	----	9.3	11.4	9.8	10.4	9.3	9.1	11.5	----	----	----	----	----	----	----
Potatoes.....do....	1.5	2.9	2.5	2.8	2.4	6.7	3.7	3.5	93	67	87	60	347	147	133
Onions.....do....	----	13.8	6.5	5.9	6.9	6.3	7.4	7.4	----	----	----	----	----	----	----
Cabbage.....do....	----	5.3	8.4	7.1	5.5	7.4	5.5	6.8	----	----	----	----	----	----	----
Beans, baked ..No. 2 can..	----	13.1	13.0	12.7	12.6	12.0	11.6	11.4	----	----	----	----	----	----	----
Corn, canned....do....	----	15.6	15.4	15.8	18.0	16.5	15.8	15.9	----	----	----	----	----	----	----
Peas, canned....do....	----	17.8	17.5	18.0	18.5	17.6	17.0	16.7	----	----	----	----	----	----	----
Tomatoes, canned ..No. 2 can..	----	13.7	12.9	12.9	13.9	12.0	12.1	11.7	----	----	----	----	----	----	----
Sugar, granulated ..pound..	5.4	6.7	10.6	9.9	7.5	6.6	7.3	7.1	24	96	83	39	22	35	31
Tea.....do....	54.3	67.7	69.2	71.0	75.5	76.3	77.6	77.2	25	27	31	39	41	43	42
Coffee.....do....	29.8	35.7	38.0	41.8	52.1	51.1	48.8	48.9	20	28	40	75	71	64	61
Prunes.....do....	----	20.0	19.7	17.5	17.4	17.1	15.5	13.6	----	----	----	----	----	----	----
Raisins.....do....	----	24.4	18.0	15.6	14.5	14.6	14.3	13.6	----	----	----	----	----	----	----
Bananas.....dozen..	----	36.1	36.6	37.2	37.4	35.5	34.0	33.0	----	----	----	----	----	----	----
Oranges.....do....	----	61.1	50.2	40.2	51.8	52.6	48.3	55.2	----	----	----	----	----	----	----
Weighted food index [1]	----	----	----	----	----	----	----	----	41.6	45.9	44.1	53.8	65.6	56.6	55.1

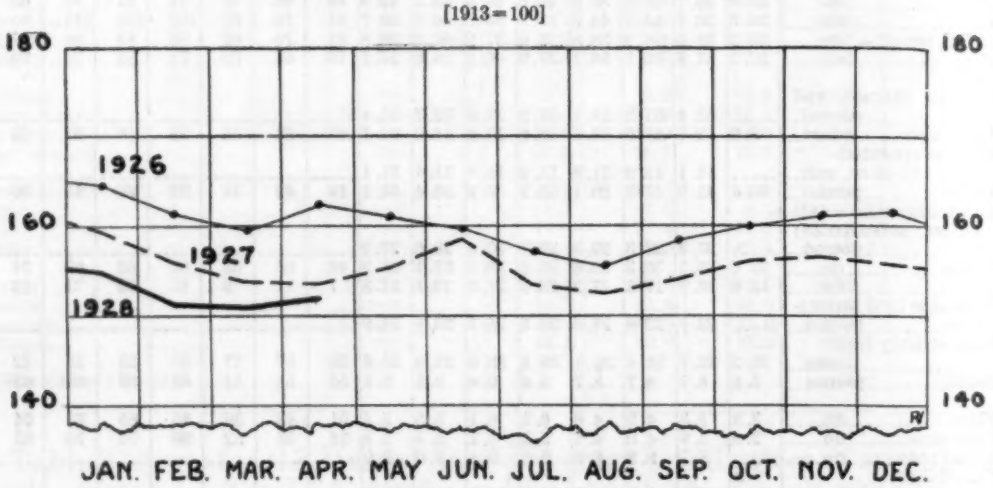
[1] Beginning with January, 1921, index numbers showing the trend in the retail cost of food have been composed of the articles shown in Tables 1 and 2, weighted according to the consumption of the average family. From January, 1913, to December, 1920, the index numbers included the following articles: Sirloin steak, round steak, rib roast, chuck roast, plate beef, pork chops, bacon, ham, lard, hens, flour, corn meal, eggs, butter, milk, bread, potatoes, sugar, cheese, rice, coffee, and tea.

Index Numbers of Retail Prices of Food in the United States

IN TABLE 3 index numbers are given which show the changes in the retail prices of specified food articles, by years, from 1913 to 1927,[2] and by months for 1927 and January through April, 1928. These index numbers, or relative prices, are based on the year 1913 as 100 and are computed by dividing the average price of each commodity for each month and each year by the average price of that commodity for 1913. These figures must be used with caution. For example, the relative price of sirloin steak for the year 1926 was 162.6, which means that the average money price for the year 1926 was 62.6 per cent higher than the average money price for the year 1913. As compared with the relative price, 159.8 in 1925, the figures

TREND OF RETAIL PRICES OF FOOD

[1913=100]



for 1926 show an increase of nearly 3 points, but an increase of 1.75 per cent in the year.

In the last column of Table 3 are given index numbers showing changes in the retail cost of all articles of food combined. Since January, 1921, these index numbers have been computed from the average prices of the articles of food shown in Tables 1 and 2, weighted according to the average family consumption in 1918. (See Review of March, 1921, p. 25.) Although prior to January, 1921, the number of food articles has varied, these index numbers have been so computed as to be strictly comparable for the entire period. The index numbers based on the average for the year 1913 as 100.0 are 151.4 for March, and 152.1 for April, 1928.

The curve shown in the chart on this page pictures more readily to the eye the changes in the cost of the food budget than do the index numbers given in the table.

[2] For index numbers of each month, January, 1913, to December, 1926, see Bulletin No. 396, pp. 44 to 61; and Bulletin No. 445, pp. 36 to 49.

TABLE 3.—INDEX NUMBERS OF RETAIL PRICES OF PRINCIPAL ARTICLES OF FOOD, BY YEARS, 1913, 1920 TO 1927, AND BY MONTHS FOR 1927 AND JANUARY THROUGH MARCH, 1928

[Average for year 1913=100.0]

Year and month	Sirloin steak	Round steak	Rib roast	Chuck roast	Plate beef	Pork chops	Bacon	Ham	Hens	Milk	Butter	Cheese
1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920	172.1	177.1	167.7	163.8	151.2	201.4	193.7	206.3	209.9	187.6	183.0	188.2
1921	152.8	154.3	147.0	132.5	118.2	166.2	158.2	181.4	186.4	164.0	135.0	153.9
1922	147.2	144.8	139.4	123.1	105.8	157.1	147.4	181.4	169.0	147.2	125.1	148.9
1923	153.9	150.2	143.4	126.3	106.6	144.8	144.8	169.1	164.3	155.1	144.7	167.0
1924	155.9	151.6	145.5	130.0	109.1	146.7	139.6	168.4	165.7	155.1	135.0	159.7
1925	159.8	155.6	149.5	135.0	114.1	174.3	173.0	195.5	171.8	157.3	143.1	166.1
1926	162.6	159.6	153.0	140.6	120.7	188.1	186.3	213.4	182.2	157.3	138.6	165.6
1927	167.7	166.4	158.1	148.1	127.3	175.2	174.8	204.5	173.2	158.4	145.2	170.1
1927: January	160.6	158.3	153.0	141.9	124.0	174.3	181.1	211.2	180.8	158.4	152.5	170.1
February	161.0	158.7	153.5	141.9	123.1	171.0	179.6	210.8	180.8	158.4	153.5	170.1
March	161.8	159.6	153.5	142.5	123.1	174.3	179.3	210.0	181.7	158.4	154.6	168.8
April	164.6	163.2	156.1	145.6	125.6	175.7	178.2	210.8	182.6	157.3	152.5	167.9
May	166.5	165.5	157.6	146.9	125.6	173.3	176.3	209.3	180.3	156.2	139.4	167.4
June	166.9	165.9	157.1	146.9	125.6	165.2	174.4	206.3	170.4	156.2	135.2	167.4
July	171.7	170.0	160.1	149.4	126.4	166.2	172.6	203.0	167.1	157.3	134.2	167.0
August	172.0	170.9	160.1	149.4	126.4	179.5	172.2	201.9	166.2	158.4	134.2	167.4
September	172.4	170.9	160.6	150.0	128.1	193.8	172.2	200.0	166.2	158.4	139.4	170.6
October	172.0	170.0	161.1	151.9	130.6	197.6	172.6	199.3	167.6	159.6	145.4	173.3
November	171.3	169.5	161.1	153.1	133.9	172.9	171.5	197.0	167.1	159.6	147.3	174.7
December	172.8	171.3	163.6	156.9	138.0	156.2	167.8	192.9	167.6	160.7	152.5	176.5
1928: January	174.8	173.1	165.2	158.8	142.1	149.0	165.2	192.2	172.8	160.7	150.9	177.4
February	176.4	174.4	167.2	160.6	144.6	140.5	161.9	190.3	174.6	160.7	147.0	177.4
March	176.8	175.3	167.2	161.3	146.3	136.2	159.3	187.7	174.6	159.6	149.6	174.2
April	178.3	177.6	169.2	163.1	147.9	149.0	158.9	188.5	177.0	158.4	143.9	172.9

Year and month	Lard	Eggs	Bread	Flour	Corn meal	Rice	Potatoes	Sugar	Tea	Coffee	All articles[1]
1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920	186.7	197.4	205.4	245.5	216.7	200.0	370.6	352.7	134.7	157.7	203.4
1921	113.9	147.5	176.8	175.8	150.0	109.2	182.4	145.5	128.1	121.8	153.3
1922	107.6	128.7	155.4	154.5	130.0	109.2	164.7	132.7	125.2	121.1	141.6
1923	112.0	134.8	155.4	142.4	136.7	109.2	170.6	183.6	127.8	126.5	146.2
1924	120.3	138.6	157.1	148.5	156.7	116.1	158.8	167.3	131.4	145.3	145.9
1925	147.5	151.0	167.9	184.8	180.0	127.6	211.8	130.9	138.8	172.8	157.4
1926	138.6	140.6	167.9	181.8	170.0	133.3	288.2	125.5	141.0	171.1	160.6
1927	122.2	131.0	166.1	166.7	173.3	123.0	223.5	132.7	142.5	162.1	155.4
1927: January	126.6	162.0	167.9	169.7	170.0	126.4	235.3	136.4	142.5	168.5	159.3
February	124.1	128.1	167.9	169.7	170.0	124.1	223.5	136.4	142.3	167.4	156.0
March	122.8	102.6	167.9	166.7	170.0	124.1	217.6	134.5	142.6	165.4	153.8
April	120.9	98.3	167.9	166.7	170.0	123.0	217.6	132.7	142.6	163.8	153.6
May	120.3	97.4	167.9	166.7	170.0	121.8	264.7	132.7	142.3	161.7	155.4
June	119.0	97.1	166.1	166.7	173.3	123.0	352.9	132.7	142.1	160.7	158.5
July	119.0	107.0	166.1	166.7	173.3	123.0	247.1	134.5	142.5	159.7	153.4
August	119.6	121.7	166.1	169.7	173.3	123.0	200.0	132.7	142.6	159.1	152.4
September	121.5	141.2	166.1	166.7	173.3	121.8	188.2	130.9	141.9	158.7	154.0
October	124.1	164.1	166.1	166.7	173.3	120.7	176.5	130.9	142.5	159.1	156.1
November	123.4	178.8	166.1	163.6	173.3	119.5	176.5	130.9	142.5	160.4	156.5
December	121.5	172.8	164.3	163.6	173.3	118.4	176.5	129.1	142.1	161.4	155.9
1928: January	119.6	162.0	164.3	160.6	173.3	117.2	176.5	129.1	142.3	162.8	155.1
February	115.8	124.9	164.3	160.6	173.3	117.2	176.5	129.1	142.1	163.1	151.6
March	112.7	107.2	162.5	160.6	173.3	116.1	200.0	129.1	142.3	163.8	151.4
April	112.7	103.8	162.5	163.6	176.7	114.9	205.9	129.1	141.9	164.1	152.1

[1] 22 articles in 1913–1920; 43 articles in 1921–1928.

TABLE 4.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES APRIL 15, 1927, AND MARCH 15 AND APRIL 15, 1928

[Exact comparisons of prices in different cities can not be made for some articles, particularly meats and vegetables, owing to differences in trade practices]

Article	Atlanta, Ga.			Baltimore, Md.			Birmingham, Ala.			Boston, Mass.			Bridgeport, Conn.		
	Apr. 15, 1927	1928		Apr. 15, 1927	1928		Apr. 15, 1927	1928		Apr. 15, 1927	1928		Apr. 15, 1927	1928	
		Mar. 15	Apr. 15		Mar. 15	Apr. 15		Mar. 15	Apr. 15		Mar. 15	Apr. 15		Mar. 15	Apr. 15
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak..pound..	41.0	42.4	44.2	39.7	42.8	42.7	41.4	43.0	43.5	[1]67.9	[1]72.1	[1]71.6	49.3	53.5	53.5
Round steak....do....	36.4	38.3	40.6	36.5	39.0	39.3	35.4	37.3	37.8	53.7	55.4	54.8	42.5	47.2	47.4
Rib roast.....do....	31.8	32.6	35.0	30.8	32.8	33.4	28.9	30.5	30.6	39.2	39.5	42.2	38.1	40.6	40.5
Chuck roast.....do....	24.4	26.4	28.6	22.7	24.9	25.3	22.6	24.7	24.6	28.8	30.8	30.6	27.7	31.8	31.3
Plate beef.....do....	15.0	16.8	17.9	15.4	18.4	18.3	14.5	16.2	17.0	19.4	21.3	21.7	11.9	13.4	13.7
Pork chops.....do....	35.4	28.5	31.3	36.8	25.0	28.6	35.8	27.8	28.6	39.3	29.8	33.8	38.7	31.5	32.8
Bacon, sliced....do....	45.7	41.9	41.4	43.0	38.0	37.5	47.6	40.5	42.3	47.7	41.4	40.6	53.2	49.4	49.0
Ham, sliced.....do....	58.5	53.3	50.8	57.9	51.2	50.5	55.3	49.3	50.3	61.4	54.4	54.3	60.0	54.6	54.6
Lamb, leg of....do....	39.7	39.5	41.3	40.1	37.8	39.7	40.0	39.4	41.9	41.6	38.5	39.4	41.8	37.7	39.0
Hens.....do....	36.6	35.0	35.9	39.7	39.5	39.7	35.3	31.8	32.1	41.1	39.4	39.8	41.9	40.2	40.3
Salmon, canned, red ..pound..	33.6	34.3	35.6	29.7	33.7	33.4	35.0	36.3	36.8	32.3	33.7	33.5	32.0	32.9	32.9
Milk, fresh.....quart..	18.0	18.0	18.0	14.0	14.0	14.0	17.0	18.7	18.3	14.4	15.5	14.8	16.0	16.0	16.0
Milk, evaporated ..15-16 oz. can..	13.2	13.1	13.1	11.4	11.1	11.1	12.4	12.1	11.8	12.1	11.8	11.5	11.6	11.5	11.5
Butter.....pound..	60.8	58.2	57.6	63.5	60.9	60.4	61.6	58.2	57.8	60.4	58.8	57.3	60.5	57.5	56.9
Oleomargarine (all butter substitutes) ..pound..	26.7	27.1	26.1	29.5	27.5	27.2	33.0	30.9	30.9	29.6	28.7	28.2	28.9	25.5	25.5
Cheese.....do....	36.5	36.6	35.8	34.9	36.9	36.3	36.2	36.7	36.4	38.5	40.5	40.7	40.6	44.1	42.3
Lard.....do....	18.3	16.7	17.2	17.1	16.3	16.2	20.4	17.5	17.5	19.3	18.0	17.9	18.6	17.3	17.2
Vegetable lard substitute.....pound..	21.0	21.8	21.8	22.3	23.1	23.2	22.2	19.7	19.7	24.5	25.0	25.0	25.6	25.5	25.5
Eggs, strictly fresh ..dozen..	32.7	33.9	33.1	30.5	34.5	33.5	32.9	34.6	32.4	48.5	54.3	49.5	44.4	52.0	46.3
Bread.....pound..	10.8	10.8	10.8	9.9	9.6	9.6	10.4	10.1	10.1	8.6	8.6	8.6	8.9	8.8	8.8
Flour.....do....	6.5	6.4	6.5	5.2	5.0	5.0	6.7	6.6	6.6	6.0	5.8	5.8	5.6	5.4	5.4
Corn meal.....do....	3.5	4.1	4.1	4.0	4.0	4.3	3.9	4.1	4.1	6.6	6.6	6.8	7.9	7.2	7.2
Rolled oats.....do....	9.4	9.6	9.6	8.1	8.1	8.1	10.0	9.8	9.8	9.1	9.0	8.9	8.5	8.6	8.6
Corn flakes..8-oz. pkg..	10.0	9.7	9.7	9.1	9.1	8.8	11.0	10.0	10.1	10.4	9.7	9.5	9.9	9.6	9.5
Wheat cereal ..28-oz. pkg..	26.2	26.6	26.6	24.1	24.4	24.2	27.4	27.4	27.3	25.0	24.5	24.9	24.8	24.5	24.7
Macaroni.....pound..	21.7	21.3	21.3	18.9	19.1	19.5	18.9	18.1	18.3	22.7	21.6	21.7	22.3	22.3	22.3
Rice.....do....	10.3	8.9	8.9	9.5	9.5	9.3	10.8	9.7	9.5	11.7	11.4	11.2	11.5	10.7	10.5
Beans, navy....do....	10.2	11.2	12.4	7.9	10.7	11.1	10.0	11.1	11.4	9.8	10.7	11.3	9.6	10.3	11.2
Potatoes.....do....	5.1	4.4	4.8	3.6	3.2	3.2	5.2	4.4	4.5	3.4	3.7	3.5	3.3	3.4	3.4
Onions.....do....	8.6	8.3	9.6	6.5	6.2	7.0	8.1	7.3	8.5	7.8	7.1	7.4	7.6	5.7	6.8
Cabbage.....do....	5.3	5.1	6.7	6.1	5.6	8.0	5.8	5.3	6.4	7.1	6.8	8.2	6.2	5.4	6.4
Beans, baked ..No. 2 can..	11.4	11.0	10.6	10.4	10.9	10.8	11.6	11.2	11.2	13.3	12.6	12.5	11.1	11.4	11.5
Corn, canned....do....	17.8	17.5	17.6	14.3	15.0	14.9	17.5	16.9	17.0	18.0	17.9	17.4	18.9	19.1	18.9
Peas, canned....do....	19.6	18.9	19.0	14.7	14.6	14.6	21.1	19.3	19.7	20.5	19.5	19.5	21.1	21.5	21.3
Tomatoes canned ..No. 2 can..	12.0	10.3	10.2	10.6	10.5	10.5	11.1	10.4	10.3	12.7	12.1	11.8	13.1	13.5	13.5
Sugar.....pound..	7.7	7.5	7.6	6.3	6.4	6.4	7.9	7.4	7.4	7.3	7.1	7.1	7.1	6.9	6.9
Tea.....do....	105.9	104.3	106.3	73.2	71.9	72.7	96.2	99.7	99.7	76.1	72.4	72.4	60.2	61.0	61.0
Coffee.....do....	50.2	48.8	48.8	43.5	44.2	44.4	53.4	50.5	50.3	55.0	53.1	53.4	48.3	47.3	47.3
Prunes.....do....	17.2	14.1	14.8	13.1	11.5	11.5	18.2	16.1	15.9	15.6	12.9	12.8	15.6	15.1	14.2
Raisins.....do....	16.3	15.4	15.0	13.0	12.9	13.0	14.7	14.9	14.4	13.4	12.7	12.7	14.1	14.0	13.8
Bananas.....dozen..	29.1	29.4	29.4	25.0	25.5	24.6	37.5	38.2	38.2	46.9	47.0	47.0	33.8	37.5	35.0
Oranges.....do....	38.8	44.5	49.5	46.1	50.5	52.4	42.9	52.3	55.2	50.6	55.8	59.0	54.2	61.5	59.5

[1] The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

TABLE 4.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES APRIL 15, 1927, AND MARCH 15 AND APRIL 15, 1928—Continued

Article	Buffalo, N. Y.			Butte, Mont.			Charleston, S. C.			Chicago, Ill.			Cincinnati, Ohio		
	Apr. 15, 1927	1928		Apr. 15, 1927	1928		Apr. 15, 1927	1928		Apr. 15, 1927	1928		Apr. 15, 1927	1928	
		Mar. 15	Apr. 15		Mar. 15	Apr. 15		Mar. 15	Apr. 15		Mar. 15	Apr. 15		Mar. 15	Apr. 15
	Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak..pound	41.4	44.3	44.4	32.6	34.7	35.0	33.7	34.3	37.9	44.7	48.0	48.5	37.5	41.0	41.4
Round steak....do	35.1	37.4	37.5	30.0	32.9	33.6	31.3	32.5	35.9	35.8	38.8	38.6	34.3	36.8	37.3
Rib roast.....do	31.4	33.2	33.2	28.1	30.4	30.1	27.5	28.5	31.2	34.6	37.7	37.6	31.3	33.8	33.9
Chuck roast....do	24.2	26.7	26.7	20.3	23.0	23.8	21.9	22.3	23.9	25.3	28.4	28.5	23.1	24.6	24.6
Plate beef.....do	14.6	17.1	17.1	14.0	16.3	15.5	14.6	16.3	18.1	15.1	17.5	17.5	15.5	18.4	19.3
Pork chops.....do	39.3	30.8	34.6	36.1	28.9	29.8	35.5	30.7	32.6	35.5	26.5	31.6	34.5	26.2	28.9
Bacon, sliced....do	44.4	39.4	38.9	56.3	49.6	49.6	41.7	36.8	38.1	51.8	46.8	46.6	41.7	37.8	37.8
Ham, sliced.....do	54.7	48.6	51.6	60.8	52.5	53.8	52.4	44.5	44.4	56.9	50.2	50.9	55.6	48.2	49.5
Lamb, leg of....do	36.9	35.6	36.8	39.6	34.8	35.0	42.5	41.4	43.6	41.1	38.1	39.8	38.1	38.2	39.5
Hens.....do	40.6	39.7	39.8	39.3	36.2	35.8	38.5	37.0	36.9	39.6	38.5	39.0	42.2	38.4	39.9
Salmon, canned, red ....pound	31.4	34.5	35.3	31.3	32.4	33.0	29.0	34.6	34.8	34.6	36.7	36.5	30.7	36.1	35.9
Milk, fresh.....quart	13.0	13.0	13.0	14.0	14.0	14.0	19.0	19.0	19.0	14.0	14.0	14.0	13.3	14.0	14.0
Milk, evaporated .....15–16 oz. can	11.3	10.7	10.7	11.1	10.7	10.7	11.9	11.6	11.6	11.2	11.0	10.9	10.9	10.9	10.7
Butter.....pound	59.2	57.9	55.4	52.0	52.8	52.3	58.0	55.6	55.7	57.7	56.3	52.9	59.3	60.8	55.8
Oleomargarine (all butter substitutes) ....pound	29.3	27.6	27.6	----	----	----	31.6	27.4	27.6	27.1	27.0	26.7	27.6	27.9	27.6
Cheese.....do	38.4	39.6	39.3	36.5	37.7	37.7	34.7	35.4	35.2	41.9	42.7	43.5	35.8	39.8	39.5
Lard.....do	18.1	16.9	17.0	23.3	21.8	21.6	20.3	18.8	18.8	18.9	17.9	17.9	16.9	16.0	15.9
Vegetable lard substitute.....pound	26.3	25.6	25.6	29.5	30.3	30.3	21.6	21.6	21.3	26.6	26.3	26.2	25.8	25.6	25.7
Eggs, strictly fresh ....dozen	34.6	42.1	38.1	37.9	37.3	36.6	33.4	34.3	35.1	35.8	39.9	38.9	28.6	35.6	32.8
Bread.....pound	8.7	8.7	8.7	9.8	9.8	9.8	11.0	10.9	10.9	9.9	9.6	9.6	9.0	7.6	7.6
Flour.....do	4.9	4.8	4.9	5.3	5.4	5.5	6.9	6.7	6.8	5.0	4.7	4.9	5.7	5.4	5.5
Corn meal.....do	5.0	5.1	5.1	5.8	6.2	6.2	3.9	3.9	3.9	6.8	6.8	6.8	4.0	4.5	4.5
Rolled oats.....do	8.8	8.8	8.7	7.4	8.0	8.0	9.6	9.5	9.4	8.6	8.6	8.6	8.7	8.8	8.9
Corn flakes 8-oz. pkg.	9.7	9.4	9.2	10.9	10.5	10.5	10.7	9.9	9.8	9.8	9.4	9.3	9.7	9.5	9.2
Wheat cereal ....28-oz. pkg.	24.7	24.8	24.8	28.5	28.7	28.5	26.3	25.6	25.6	25.5	25.4	25.6	24.8	24.8	24.8
Macaroni.....pound	21.3	21.4	21.4	20.4	19.5	19.7	18.6	18.5	18.5	19.6	18.9	18.7	18.3	18.3	18.2
Rice.....do	10.5	10.1	9.9	11.4	11.1	11.1	7.5	6.7	6.6	11.5	10.4	10.3	10.2	9.5	9.5
Beans, navy.....do	8.7	10.0	10.7	10.1	10.1	10.4	9.6	11.2	11.0	9.4	10.7	11.7	7.7	10.5	12.3
Potatoes.....do	3.0	3.2	3.4	2.7	1.7	2.0	3.9	3.9	3.7	3.2	3.2	3.2	3.9	3.4	3.6
Onions.....do	7.1	7.0	7.3	7.2	5.6	5.9	7.8	7.4	8.0	7.6	6.3	7.4	6.9	6.6	7.4
Cabbage.....do	5.3	5.4	6.7	6.9	6.1	6.4	3.9	4.8	5.6	5.6	5.4	7.2	5.7	5.5	7.2
Beans, baked ....No. 2 can	9.9	9.9	9.9	13.9	13.5	13.5	9.7	9.8	9.9	12.7	12.4	12.5	10.4	10.4	10.3
Corn, canned....do	15.6	15.8	15.9	15.0	14.3	14.6	13.9	15.0	14.8	16.3	16.3	16.3	15.1	15.7	15.7
Peas, canned....do	16.0	16.1	15.7	15.0	13.6	13.7	17.2	16.5	16.4	16.8	16.8	16.6	17.0	16.8	16.9
Tomatoes, canned ....No 2 can	13.5	12.6	12.7	13.3	12.8	12.8	10.5	9.8	9.8	13.8	13.7	13.7	12.4	11.5	11.6
Sugar.....pound	7.0	6.7	6.8	8.6	8.4	8.5	6.7	6.7	6.8	7.1	6.9	6.9	7.3	7.3	7.4
Tea.....do	69.8	68.5	69.0	82.3	82.4	82.2	76.9	80.7	80.7	73.0	69.5	68.9	76.5	80.1	80.1
Coffee.....do	47.2	46.3	46.5	54.7	54.4	54.4	45.2	44.4	44.8	48.7	47.7	47.7	43.5	44.2	44.7
Prunes.....do	14.3	13.0	13.3	15.2	14.7	14.5	14.5	10.3	10.3	17.8	15.3	15.0	16.2	13.3	13.6
Raisins.....do	13.6	13.0	12.5	15.1	14.6	14.6	14.1	12.9	12.8	15.1	14.0	14.1	14.3	14.2	14.2
Bananas.....dozen	42.2	41.8	40.2	[2] 14.8	[2] 13.6	[2] 8.5	26.9	26.0	23.5	38.5	40.4	40.4	35.5	36.7	36.1
Oranges.....do	53.2	56.9	57.0	49.0	52.2	54.0	34.8	38.8	49.6	53.3	56.8	57.4	44.4	50.7	53.3

[2] Per pound.

TABLE 4.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES APRIL 15, 1927, AND MARCH 15 AND APRIL 15, 1928—Continued

Article	Cleveland, Ohio			Columbus, Ohio			Dallas, Tex.			Denver, Colo.			Detroit, Mich.		
	Apr. 15, 1927	1928		Apr. 15, 1927	1928		Apr. 15, 1927	1928		Apr. 15, 1927	1928		Apr. 15, 1927	1928	
		Mar. 15	Apr. 15		Mar. 15	Apr. 15		Mar. 15	Apr. 15		Mar. 15	Apr. 15		Mar. 15	Apr. 15
	Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak...pound..	39.8	42.9	43.3	40.1	44.2	43.5	37.0	40.0	41.0	33.6	37.2	37.0	41.7	46.3	46.6
Round steak.....do....	33.8	36.5	37.1	35.4	38.2	38.3	33.3	37.3	37.9	29.7	34.2	34.3	35.5	38.1	38.6
Rib roast.....do....	29.1	30.1	31.1	31.6	32.8	32.9	27.4	32.5	32.3	24.3	27.6	27.9	31.5	33.5	34.6
Chuck roast.....do....	24.4	26.8	27.3	25.5	27.3	27.5	22.4	26.2	27.3	19.6	22.5	22.5	23.3	26.2	26.8
Plate beef.....do....	14.1	17.8	18.1	16.2	18.8	18.6	17.9	19.6	20.2	11.4	13.9	14.0	14.6	16.8	17.1
Pork chops.....do....	37.1	27.8	33.0	35.2	27.8	28.6	35.8	31.5	32.7	33.5	25.8	29.0	38.6	27.7	31.9
Bacon, sliced.....do....	48.0	41.8	41.0	50.2	44.6	44.3	47.5	45.9	46.3	47.9	43.0	41.9	50.0	44.9	44.1
Ham, sliced.....do....	58.1	51.7	52.0	57.3	50.0	48.6	59.9	53.1	53.8	57.1	51.4	51.2	61.1	53.9	53.1
Lamb, leg of.....do....	39.0	36.9	38.3	43.3	45.3	43.0	46.4	43.9	45.6	37.2	36.5	37.2	41.4	38.9	41.1
Hens.....do....	41.2	38.5	39.9	39.0	38.0	39.3	32.8	32.3	32.5	34.2	30.8	32.9	41.0	39.1	39.6
Salmon, canned, red .....pound..	33.1	35.6	35.5	35.6	37.1	37.6	34.6	38.8	38.4	33.5	38.1	38.0	32.9	36.1	35.7
Milk, fresh.....quart..	13.7	13.7	13.7	12.0	10.5	11.0	13.0	12.7	12.3	12.0	12.0	12.0	14.0	14.0	14.0
Milk, evaporated .....15–16 oz. can..	11.3	11.1	11.1	11.4	11.2	11.1	13.3	13.4	13.2	10.4	10.1	10.1	11.1	10.9	10.7
Butter.....pound..	61.9	61.3	56.8	58.0	55.8	52.8	54.8	58.4	57.3	54.1	51.3	50.0	60.1	59.1	54.2
Oleomargarine (all butter substitutes) .....pound..	29.1	28.5	28.5	28.7	27.3	26.8	30.9	28.6	28.6	24.8	24.3	24.4	28.8	25.7	25.3
Cheese.....do....	38.2	40.1	39.7	36.5	37.0	36.4	37.0	38.3	37.4	37.3	39.2	39.5	38.1	40.6	40.0
Lard.....do....	20.6	19.3	19.5	16.2	14.5	14.3	21.7	21.8	21.4	19.9	17.8	17.5	19.0	17.3	17.6
Vegetable lard substitute.....pound..	26.9	26.8	26.9	26.0	26.5	26.2	23.3	23.9	23.9	22.2	20.6	21.2	27.1	26.5	26.8
Eggs, strictly fresh .....dozen..	35.2	39.4	38.9	27.8	32.4	31.1	28.8	32.0	31.6	30.8	31.1	31.3	32.9	38.3	36.5
Bread.....pound..	7.7	7.7	7.7	8.0	7.2	7.2	9.5	9.3	9.3	8.1	8.1	8.2	8.4	8.0	8.0
Flour.....do....	5.5	5.4	5.4	5.3	4.9	4.9	5.5	5.6	5.6	4.3	4.4	4.5	5.4	5.1	5.1
Corn meal.....do....	5.4	5.6	5.6	3.7	3.9	4.1	4.2	4.4	4.3	4.3	4.5	4.6	5.8	6.1	6.1
Rolled oats.....do....	9.5	9.3	9.4	9.4	9.6	9.2	10.4	10.1	10.4	7.8	7.5	7.5	9.4	9.4	9.2
Corn flakes, 8-oz. pkg..	10.6	10.0	9.9	10.2	10.1	10.0	11.3	10.4	10.2	10.3	9.5	9.7	10.2	9.8	9.5
Wheat cereal .....28-oz. pkg..	25.4	26.2	25.8	26.0	26.4	26.4	27.8	27.6	27.4	24.7	24.6	24.7	25.6	26.2	26.1
Macaroni.....pound..	21.5	21.4	21.5	20.8	19.6	19.6	22.1	21.7	21.8	20.0	19.3	19.2	22.2	22.1	21.8
Rice.....do....	11.0	10.4	10.4	12.7	11.6	11.1	11.8	11.6	11.3	10.1	9.3	8.9	12.1	11.4	11.2
Beans, navy.....do....	8.4	10.3	10.8	7.8	10.2	11.7	10.5	12.1	12.7	9.3	10.9	11.4	8.0	10.5	11.7
Potatoes.....do....	3.8	3.6	3.7	3.5	3.3	3.3	5.3	4.9	4.8	3.6	2.7	2.9	2.9	2.9	2.9
Onions.....do....	6.8	6.3	7.5	7.6	7.2	8.3	9.0	7.3	8.2	5.9	4.7	5.3	6.5	5.8	7.3
Cabbage.....do....	5.5	5.4	6.6	6.0	5.3	7.3	5.4	4.8	5.6	5.1	4.8	6.5	5.1	5.3	7.0
Beans, baked .....No. 2 can..	13.0	13.0	12.9	12.6	11.9	11.9	13.5	12.2	12.2	11.2	11.2	11.2	11.0	11.1	11.5
Corn, canned.....do....	16.6	17.1	16.8	14.6	14.5	14.5	18.2	18.6	18.6	13.9	14.2	14.0	16.0	15.6	15.8
Peas, canned.....do....	18.2	17.6	17.5	15.3	14.8	14.8	21.7	22.2	21.5	14.6	15.2	15.1	16.5	16.3	16.3
Tomatoes, canned .....No. 2 can..	14.1	13.8	13.6	12.8	12.7	12.7	12.9	11.9	11.8	11.7	11.8	12.0	12.6	12.2	12.3
Sugar.....pound..	7.6	7.6	7.6	7.8	7.6	7.7	8.0	7.6	7.8	7.6	7.5	7.5	7.5	7.4	7.3
Tea.....do....	81.8	80.0	80.0	89.3	86.7	86.2	105.6	105.6	105.4	69.0	69.6	69.5	73.8	75.2	75.2
Coffee.....do....	52.2	51.7	51.7	49.3	48.5	48.7	58.9	57.2	57.5	49.5	49.6	50.0	50.1	47.7	47.8
Prunes.....do....	15.3	13.7	13.9	16.8	15.6	15.2	20.9	16.6	16.6	16.2	14.3	15.0	17.2	14.3	14.2
Raisins.....do....	14.9	13.2	13.3	14.3	14.1	13.9	15.8	15.3	15.3	14.5	13.2	13.1	14.8	13.5	13.4
Bananas.....dozen..	[2] 10.4	[2] 10.7	[2] 10.4	38.1	36.0	34.0	33.8	37.5	36.3	[2] 10.5	[2] 8.8	[2] 8.5	35.0	34.2	32.5
Oranges.....do....	50.3	57.1	61.6	51.7	56.7	53.8	50.4	50.3	53.1	48.4	50.1	54.4	53.5	56.5	57.4

[2] Per pound.

TABLE 4.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES APRIL 15, 1927, AND MARCH 15 AND APRIL 15, 1928—Continued

Article	Fall River, Mass.			Houston, Tex.			Indianapolis, Ind.			Jacksonville, Fla.			Kansas City, Mo.		
	Apr. 15, 1927	1928		Apr. 15, 1927	1928		Apr. 15, 1927	1928		Apr. 15, 1927	1928		Apr. 15, 1927	1928	
		Mar. 15	Apr. 15		Mar. 15	Apr. 15		Mar. 15	Apr. 15		Mar. 15	Apr. 15		Mar. 15	Apr. 15
	Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak..pound..	[1] 60.7	[1] 67.9	[1] 68.4	35.4	37.0	38.8	38.3	41.7	43.8	36.3	38.1	39.0	37.3	41.7	41.6
Round steak....do....	46.6	52.1	52.1	33.6	36.3	37.5	37.1	40.2	41.0	31.3	34.1	33.6	32.6	36.6	36.2
Rib roast.....do....	31.9	35.6	37.7	26.8	29.7	31.0	29.1	30.5	31.8	27.1	28.1	28.5	26.6	28.5	28.6
Chuck roast.....do....	23.2	26.7	27.3	22.1	23.9	24.0	24.7	26.5	27.0	20.0	21.5	22.1	19.2	22.3	22.5
Plate beef.....do....	13.4	17.7	15.8	17.5	21.2	20.3	15.9	17.8	17.7	12.5	13.5	14.3	13.4	16.5	16.4
Pork chops.....do....	37.6	29.2	31.9	35.1	27.5	29.0	34.6	27.3	29.4	35.4	26.5	28.3	33.8	24.3	27.3
Bacon, sliced.....do....	44.4	41.6	42.1	48.1	41.8	39.3	44.1	40.2	41.4	45.4	38.0	37.0	46.1	42.8	41.0
Ham, sliced.....do....	56.3	50.0	51.4	53.9	46.2	46.2	57.5	51.3	52.1	53.6	44.2	45.0	54.3	49.1	48.8
Lamb, leg of.....do....	41.5	40.3	42.5	34.3	33.3	35.0	43.3	40.0	42.0	39.0	37.7	41.0	35.6	34.9	35.8
Hens.....do....	44.0	42.8	43.3	35.5	32.1	35.5	38.3	40.4	39.2	38.4	33.7	34.1	34.6	33.3	34.4
Salmon, canned, red .....pound..	35.4	36.4	36.4	30.5	34.5	34.5	33.3	35.9	33.7	33.2	34.0	34.7	35.0	37.2	37.4
Milk, fresh.....quart..	14.0	14.7	14.7	15.6	15.6	15.6	12.0	12.0	12.0	21.7	20.3	20.3	13.0	13.0	13.0
Milk, evaporated .....15–16 oz. can..	12.5	12.6	12.5	11.3	10.9	10.5	10.7	10.7	10.6	11.7	11.2	10.9	11.5	11.3	11.2
Butter.....pound..	58.2	56.5	56.4	54.1	55.9	53.7	58.8	57.3	54.6	60.2	57.0	55.8	58.3	56.7	54.8
Oleomargarine (all butter substitutes) .....pound..	30.8	27.4	26.2	28.2	25.4	25.3	30.5	29.3	28.9	30.6	30.1	29.2	25.9	25.7	25.6
Cheese.....do....	39.5	41.5	42.2	32.2	33.2	33.5	37.0	39.2	39.1	34.3	35.5	35.7	36.6	37.8	37.5
Lard.....do....	18.1	16.8	16.6	19.6	19.7	19.4	17.0	15.0	15.5	21.6	17.9	18.5	18.6	17.3	17.7
Vegetable lard substitute.....pound..	26.6	26.6	26.9	16.4	15.4	15.8	27.3	26.9	26.5	22.8	21.9	21.4	27.0	26.8	26.8
Eggs, strictly fresh .....dozen..	42.8	46.2	42.9	26.0	29.0	29.0	27.9	32.4	31.8	33.9	33.3	33.9	30.3	35.0	34.0
Bread.....pound..	8.9	8.7	8.7	8.6	8.5	8.6	8.1	8.0	7.9	11.1	10.1	10.0	9.7	9.8	9.8
Flour.....do....	5.7	5.7	5.7	5.2	5.2	5.2	5.5	5.5	5.4	6.4	6.5	6.5	4.6	5.0	5.1
Corn meal.....do....	6.6	7.0	7.0	4.0	4.0	4.0	4.1	4.0	4.0	3.8	4.2	4.2	4.8	5.3	5.2
Rolled oats.....do....	9.4	9.4	9.5	8.7	8.7	8.5	8.3	8.7	8.9	9.3	9.1	9.0	9.2	8.8	8.9
Corn flakes 8-oz. pkg..	10.7	10.2	10.2	10.6	9.1	8.8	9.8	9.4	9.4	10.1	9.8	9.7	10.5	9.9	9.9
Wheat cereal .....28-oz. pkg..	25.3	25.3	25.3	25.4	25.2	25.2	24.8	26.6	25.9	24.5	24.2	24.8	26.4	26.9	26.8
Macaroni.....pound..	24.5	23.3	23.3	18.6	17.9	18.0	19.2	18.8	18.8	19.3	18.9	18.8	19.5	20.2	20.0
Rice.....do....	11.5	11.2	11.0	9.0	7.5	6.7	10.7	10.2	11.2	9.4	8.1	7.7	9.4	9.3	9.2
Beans, navy.....do....	9.8	11.2	11.5	9.1	11.1	11.8	8.2	10.7	12.3	9.6	10.8	11.7	9.2	11.1	11.4
Potatoes.....do....	3.4	3.7	3.5	4.8	4.2	4.4	3.0	3.1	3.2	4.2	4.1	4.1	3.7	3.2	3.0
Onions.....do....	7.4	6.4	8.4	7.4	5.7	6.6	7.5	7.3	8.5	8.4	7.8	8.2	8.2	7.1	9.3
Cabbage.....do....	6.7	6.4	8.3	4.6	4.7	6.0	5.1	4.7	7.8	5.1	4.2	4.3	4.9	4.9	7.8
Beans, baked .....No. 2 can..	12.4	12.1	12.1	11.2	10.7	10.9	9.9	10.2	9.7	10.5	10.4	10.5	12.5	11.8	11.7
Corn, canned.....do....	16.3	17.1	17.3	14.0	13.6	13.5	14.1	13.7	13.7	17.0	17.8	17.5	14.0	14.1	14.7
Peas, canned.....do....	18.3	19.3	19.5	13.6	14.0	14.0	14.3	14.2	14.2	17.1	17.3	17.9	14.5	15.4	15.4
Tomatoes, canned .....No. 2 can..	13.1	12.3	12.1	11.0	9.9	10.0	13.0	12.0	12.0	10.9	9.9	9.8	11.5	11.5	11.2
Sugar.....pound..	7.2	7.2	7.1	7.1	6.9	6.9	7.6	7.3	7.3	7.6	7.3	7.2	7.5	7.6	7.6
Tea.....do....	63.8	60.4	58.2	84.3	82.4	81.4	87.9	87.8	87.8	98.8	98.9	96.6	89.4	91.7	91.5
Coffee.....do....	51.2	49.5	48.7	42.1	42.4	43.0	48.8	48.1	47.9	48.7	47.8	47.8	50.2	51.4	51.5
Prunes.....do....	15.1	14.1	14.1	15.1	12.8	12.5	17.1	14.6	14.4	15.9	15.4	15.2	16.2	14.4	14.5
Raisins.....do....	14.0	13.3	13.1	14.1	12.3	12.6	15.2	14.8	14.8	14.6	15.0	14.6	14.8	14.5	14.5
Bananas.....dozen..	[1] 10.0	[1] 10.2	[1] 10.2	26.2	25.8	25.4	29.1	30.6	31.1	29.2	29.3	28.6	[1] 10.5	[1] 10.3	[1] 9.9
Oranges.....do....	49.2	54.5	58.8	44.8	42.0	42.4	47.3	51.2	54.1	29.2	46.4	46.1	51.6	50.5	52.9

[1] Per pound.

[2] The steak for which prices are here quoted is called "rump" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

TABLE 4.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES APRIL 15, 1927, AND MARCH 15 AND APRIL 15, 1928—Continued

Article	Little Rock, Ark.			Los Angeles, Calif.			Louisville, Ky.			Manchester, N. H.			Memphis, Tenn.		
	Apr. 15, 1927	1928		Apr. 15, 1927	1928		Apr. 15, 1927	1928		Apr. 15, 1927	1928		Apr. 15, 1927	1928	
		Mar. 15	Apr. 15		Mar. 15	Apr. 15		Mar. 15	Apr. 15		Mar. 15	Apr. 15		Mar. 15	Apr. 15
	Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak..pound..	36.0	40.0	40.9	37.7	41.1	40.9	35.8	39.3	39.5	[2] 58.8	[1] 62.2	[1] 62.6	35.5	40.5	41.5
Round steak....do....	32.7	36.8	38.1	30.9	34.3	33.7	32.3	36.4	36.5	48.3	47.5	47.8	33.9	36.2	37.2
Rib roast.....do....	27.8	30.8	31.7	29.7	33.0	32.3	26.5	28.9	29.2	29.2	30.5	30.7	26.5	28.8	29.8
Chuck roast....do....	21.4	24.5	24.1	21.1	24.6	24.1	20.5	23.8	23.8	23.7	25.8	25.4	19.9	23.1	23.8
Plate beef.....do....	16.4	20.2	19.4	14.3	18.0	16.7	16.9	19.2	19.4	16.6	19.0	18.5	16.3	18.3	19.3
Pork chops.....do....	33.2	26.5	30.2	42.8	34.0	36.6	32.5	24.2	28.8	35.9	25.9	30.4	31.9	23.4	25.2
Bacon, sliced....do....	49.2	42.4	43.2	55.6	49.1	47.8	47.7	43.4	43.0	41.9	36.2	37.1	40.8	36.4	36.1
Ham, sliced.....do....	54.6	47.4	48.8	70.0	63.7	62.4	52.3	47.3	47.3	46.6	41.5	42.0	55.0	47.1	47.1
Lamb, leg of....do....	42.0	36.7	40.0	36.8	37.4	37.9	40.3	36.7	41.7	39.3	36.8	38.6	40.0	36.1	37.2
Hens.....do....	31.1	29.9	30.1	44.5	43.4	43.5	38.8	35.4	34.6	43.4	42.2	41.8	33.0	30.6	31.5
Salmon, canned, red ..pound..	33.5	36.1	36.5	31.0	33.6	33.8	31.3	35.2	35.2	32.0	35.0	35.0	33.1	33.1	33.1
Milk, fresh.....quart..	15.0	15.0	15.0	15.0	15.0	15.0	12.8	13.0	12.0	13.8	15.0	15.0	15.0	15.0	15.0
Milk, evaporated ..15–16 oz. can..	11.9	11.9	11.8	10.2	10.0	9.8	11.8	11.8	11.6	12.8	12.7	12.7	11.2	11.6	11.4
Butter.....pound..	56.6	56.1	55.0	52.8	53.0	49.1	59.6	58.9	57.3	61.1	59.1	58.1	56.7	57.9	56.8
Oleomargarine (all butter substitutes) ..pound..	28.5	27.5	27.5	26.6	25.4	25.3	27.5	27.0	27.0	25.8	25.6	24.6	25.6	24.3	24.4
Cheese.....do....	37.3	38.8	36.8	38.1	38.8	38.8	37.1	38.1	37.1	36.8	38.9	38.4	33.3	33.9	34.1
Lard.....do....	21.7	21.0	20.9	19.6	18.5	18.3	17.7	15.7	16.3	18.3	17.4	17.4	15.9	14.3	14.5
Vegetable lard substitute.....pound..	21.9	21.3	20.2	24.7	23.7	23.5	29.3	26.7	26.4	26.6	26.5	26.3	19.7	22.5	21.8
Eggs, strictly fresh ..dozen..	28.9	30.1	30.7	31.6	33.8	34.5	27.0	32.8	31.4	40.5	45.1	41.3	28.9	33.3	32.1
Bread.....pound..	9.3	9.3	9.3	8.5	8.7	8.9	9.3	9.1	9.1	8.7	8.6	8.6	9.5	9.5	9.5
Flour.....do....	6.1	6.1	6.1	5.3	5.3	5.4	5.9	6.3	6.5	5.7	5.5	5.6	5.9	6.0	6.2
Corn meal.....do....	3.8	3.8	4.0	5.2	5.7	5.7	3.8	4.1	4.2	5.3	5.2	5.2	3.6	3.7	3.9
Rolled oats.....do....	10.1	10.5	10.5	10.0	10.0	9.9	8.5	8.6	8.5	9.2	9.1	9.1	9.0	9.0	9.1
Corn flakes..6-oz. pkg..	11.0	10.3	10.2	9.6	9.4	9.4	10.1	9.6	9.1	10.1	9.7	9.6	10.3	9.8	9.7
Wheat cereal ..28-oz. pkg..	25.9	27.8	27.6	25.1	25.0	25.0	25.5	27.0	26.8	25.6	25.8	25.8	25.2	25.6	25.9
Macaroni.....pound..	20.2	20.5	20.7	18.4	18.4	18.4	19.1	18.7	18.9	23.9	23.4	23.4	18.9	19.7	19.5
Rice.....do....	8.4	8.1	7.9	10.2	10.0	10.1	11.4	10.8	11.4	10.0	9.2	9.2	8.4	8.9	8.4
Beans, navy....do....	9.4	10.6	11.0	9.3	11.2	11.5	7.8	10.7	11.5	9.0	11.0	11.9	8.7	10.6	11.1
Potatoes.....do....	4.6	4.0	4.1	4.5	3.2	3.7	3.6	3.3	3.6	3.0	3.4	3.2	4.5	3.9	3.9
Onions.....do....	9.4	6.6	8.9	7.5	6.3	6.9	9.2	6.4	7.8	6.9	6.0	7.1	7.1	5.8	7.2
Cabbage.....do....	4.8	5.0	6.8	4.6	3.9	4.5	5.6	5.6	7.2	6.3	4.9	6.1	4.3	4.3	5.7
Beans, baked ..No. 2 can..	10.6	10.5	10.6	11.1	11.0	11.1	10.2	10.4	10.2	13.3	13.2	13.2	11.2	11.1	11.1
Corn, canned..pound..	16.8	16.3	16.3	15.6	16.5	16.3	13.9	15.3	15.3	16.6	16.4	16.4	14.0	14.6	14.9
Peas, canned....do....	18.8	17.1	17.1	17.0	16.9	17.0	14.4	15.0	15.2	18.7	18.3	18.0	14.8	16.2	16.3
Tomatoes, canned ..No. 2 can..	10.7	10.0	10.0	[4] 15.1	[4] 14.8	[4] 14.8	11.2	10.5	10.3	13.3	12.3	12.1	10.0	9.7	9.6
Sugar.....pound..	8.2	7.7	7.8	7.0	6.9	7.0	7.8	7.3	7.3	7.5	7.1	7.2	7.2	7.0	7.1
Tea.....do....	106.3	105.4	105.1	74.4	74.0	74.8	91.1	90.5	89.8	63.5	64.1	64.5	99.4	97.9	98.5
Coffee.....do....	52.2	53.3	53.2	50.1	53.3	53.3	49.1	50.2	49.5	50.3	50.7	51.1	47.7	48.4	48.1
Prunes.....do....	16.9	13.8	14.3	15.1	12.1	12.6	15.3	14.3	14.1	14.6	12.6	12.5	14.4	13.7	14.1
Raisins.....do....	15.5	15.0	15.0	12.9	12.2	12.2	14.5	14.1	13.9	13.8	13.4	13.4	14.7	14.5	14.8
Bananas.....dozen..	[3] 9.1	[3] 8.9	[3] 7.8	[3] 9.6	[3] 9.2	[3] 8.8	[3] 10.3	[3] 9.8	[3] 10.1	[3] 9.8	[3] 9.5	[3] 8.8	[3] 8.2	[3] 8.9	[3] 8.4
Oranges.....do....	49.6	51.4	54.1	44.2	43.6	42.9	39.6	45.0	52.3	50.2	53.8	58.8	39.4	49.2	56.5

[1] The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.
[2] Per pound.
[4] No. 2½ can.

TABLE 4.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES APRIL 15, 1927, AND MARCH 15 AND APRIL 15, 1928—Continued

Article	Milwaukee, Wis.			Minneapolis, Minn.			Mobile, Ala.			Newark, N. J.			New Haven, Conn.		
	Apr. 15, 1927	1928		Apr. 15, 1927	1928		Apr. 15, 1927	1928		Apr. 15, 1927	1928		Apr. 15, 1927	1928	
		Mar. 15	Apr. 15		Mar. 15	Apr. 15		Mar. 15	Apr. 15		Mar. 15	Apr. 15		Mar. 15	Apr. 15
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak..pound..	37.9	40.5	41.0	33.1	38.1	38.3	35.0	38.5	39.0	46.6	50.4	50.0	54.3	58.2	57.6
Round steak....do....	34.0	36.2	37.1	29.9	33.1	33.9	34.5	37.5	39.0	44.8	47.5	47.2	43.8	47.3	46.9
Rib roast.....do....	28.5	30.9	31.0	26.5	29.7	30.1	28.6	30.3	32.0	36.0	39.4	38.6	36.2	38.8	38.8
Chuck roast.....do....	24.5	27.1	27.5	22.4	25.0	25.1	23.2	24.5	26.0	25.5	29.4	28.9	26.3	29.2	29.0
Plate beef.....do....	14.6	17.3	17.5	13.5	15.5	16.1	18.4	20.0	20.7	13.3	18.5	18.6	15.6	17.3	17.6
Pork chops.....do....	34.2	26.5	29.9	33.8	29.7	32.9	38.2	34.5	33.5	37.3	30.0	34.1	37.2	27.9	29.8
Bacon, sliced....do....	47.7	42.3	41.9	47.7	46.4	46.3	48.1	43.1	42.1	46.2	43.3	43.2	47.9	44.8	43.6
Ham, sliced.....do....	52.3	46.0	46.0	54.2	45.9	46.8	51.9	49.2	47.7	55.2	51.5	50.9	60.3	56.1	56.4
Lamb, leg of....do....	41.8	38.0	41.0	36.7	34.8	37.5	41.4	40.0	40.0	39.9	39.0	40.6	40.0	39.3	39.9
Hens.....do....	38.4	35.4	36.9	35.5	35.4	36.3	37.6	33.4	33.7	38.1	37.3	37.7	41.7	41.3	41.1
Salmon, canned, red ..pound..	33.3	34.8	34.4	34.0	36.7	37.7	31.6	35.8	36.3	30.0	33.4	33.6	30.8	34.6	34.3
Milk, fresh....quart..	11.0	11.0	11.0	11.0	12.0	12.0	18.5	18.0	18.0	15.0	16.0	15.0	16.0	16.0	16.0
Milk, evaporated ..15-16 oz. can..	11.1	11.0	10.9	11.6	11.6	11.8	11.6	11.2	11.0	11.1	10.6	10.7	12.0	12.0	11.8
Butter.....pound..	57.1	56.0	51.5	56.0	55.3	51.8	59.8	59.4	57.5	60.8	59.5	57.0	60.0	56.9	56.3
Oleomargarine (all butter substitutes) ..pound..	26.3	26.6	26.3	25.3	25.5	25.5	28.8	29.1	28.9	30.7	30.1	29.6	31.2	29.4	29.6
Cheese.....do....	35.3	37.5	36.9	36.0	37.3	36.6	37.0	37.8	36.2	39.5	39.0	39.2	39.7	41.3	40.2
Lard.....do....	19.0	18.0	18.1	17.9	17.4	17.7	19.2	18.6	18.3	19.1	17.7	18.0	18.4	18.4	18.1
Vegetable lard substitute.....pound..	26.7	26.4	26.4	27.2	27.3	27.2	20.2	20.6	20.6	25.7	25.6	27.7	25.6	26.1	26.0
Eggs, strictly fresh ..dozen..	28.9	32.9	31.9	30.3	33.9	33.3	31.3	30.2	29.1	42.4	45.6	45.1	43.9	50.9	47.5
Bread.....pound..	9.0	8.8	8.7	9.0	8.9	8.9	10.1	10.1	10.1	9.6	9.1	9.1	9.2	9.2	9.2
Flour.....do....	4.9	4.8	4.8	5.1	5.0	5.0	6.2	6.1	6.1	5.4	5.1	5.1	5.4	5.3	5.5
Corn meal.....do....	5.6	5.8	5.8	5.5	5.7	5.9	3.7	4.0	4.1	6.5	6.9	6.9	6.7	6.9	7.0
Rolled oats.....do....	8.4	8.2	8.2	8.3	8.1	8.1	8.4	8.5	8.5	8.3	8.3	8.2	9.1	9.1	9.3
Corn flakes..8-oz. pkg..	9.8	9.5	9.3	9.9	9.7	9.8	9.9	9.5	9.4	9.7	9.2	9.1	10.5	10.0	9.9
Wheat cereal ..28-oz. pkg..	24.4	24.5	24.6	25.6	25.3	25.3	24.8	24.4	24.4	24.1	24.7	24.7	24.8	24.7	24.7
Macaroni.....pound..	17.5	17.7	17.6	18.9	18.3	18.4	20.3	21.1	21.1	20.9	21.4	21.4	22.0	22.4	22.4
Rice.....do....	10.3	10.2	10.0	10.9	9.6	9.8	9.9	9.3	9.0	10.5	9.0	9.2	11.1	10.2	10.3
Beans, navy.....do....	8.1	11.1	11.9	9.1	11.0	12.2	8.7	11.0	11.2	9.7	10.6	12.1	9.2	10.5	11.0
Potatoes.....do....	2.6	2.9	2.9	3.0	2.7	2.7	4.7	4.1	4.1	4.0	3.9	4.1	3.4	3.5	3.5
Onions.....do....	7.5	5.6	7.8	7.6	5.9	6.9	7.8	6.2	7.9	7.4	6.4	7.6	7.2	6.9	7.2
Cabbage.....do....	4.9	5.1	6.8	5.0	5.0	7.4	3.8	4.9	5.5	6.2	5.3	8.3	6.5	5.9	7.4
Beans, baked ..No. 2 can..	11.1	11.3	11.1	12.3	12.3	12.3	10.4	10.2	10.4	10.7	10.3	10.3	11.3	11.5	11.4
Corn, canned....do....	15.1	15.8	15.8	14.5	14.4	14.6	17.3	16.0	16.1	15.1	16.5	16.9	18.1	18.1	18.3
Peas, canned....do....	15.6	15.6	15.6	14.6	14.6	14.6	16.4	15.4	15.4	16.0	18.3	17.8	19.3	19.3	19.3
Tomatoes, canned ..No. 2 can..	13.4	13.1	13.3	13.8	13.0	13.0	10.8	10.2	10.3	11.5	10.5	10.4	12.9	12.8	13.0
Sugar.....do....	7.0	6.8	6.9	7.5	7.2	7.2	7.5	7.0	7.0	6.7	6.5	6.7	7.2	6.9	7.0
Tea.....do....	70.7	70.6	70.8	60.0	63.2	62.0	79.2	78.5	78.6	62.8	59.3	59.8	58.4	59.6	59.6
Coffee.....do....	42.5	43.8	44.1	52.2	52.0	52.2	48.5	47.9	47.9	47.3	47.8	48.5	50.7	51.9	51.7
Prunes.....do....	15.4	13.8	13.7	15.5	13.8	13.9	14.8	12.9	13.0	14.5	12.6	12.4	15.7	13.2	13.2
Raisins.....do....	14.6	13.6	13.7	14.8	14.3	14.2	14.3	13.4	13.4	14.3	13.8	13.5	14.0	13.7	13.9
Bananas.....dozen..	[2] 9.2	[2] 9.5	[2] 9.0	[2] 11.5	[2] 11.3	[2] 11.8	22.8	24.5	24.5	37.5	38.0	38.0	35.0	33.5	33.5
Oranges.....do....	47.3	53.0	53.7	48.8	52.5	53.6	42.7	52.5	54.5	48.1	54.7	60.2	50.5	55.8	57.6

[2] Per pound.

TABLE 4.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES APRIL 15, 1927, AND MARCH 15 AND APRIL 15, 1928—Continued

Article	New Orleans, La.			New York, N. Y.			Norfolk, Va.			Omaha, Nebr.			Peoria, Ill.		
	Apr. 15, 1927	1928		Apr. 15, 1927	1928		Apr. 15, 1927	1928		Apr. 15, 1927	1928		Apr. 15, 1927	1928	
		Mar. 15	Apr. 15		Mar. 15	Apr. 15		Mar. 15	Apr. 15		Mar. 15	Apr. 15		Mar. 15	Apr. 15
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak..pound..	36.7	38.9	40.1	45.9	49.8	49.0	41.2	43.1	42.7	37.8	38.8	39.5	36.6	36.4	37.2
Round steak....do....	32.1	34.7	35.9	44.1	46.7	46.5	34.9	37.4	37.8	35.1	36.6	37.5	34.8	35.0	36.2
Rib roast.....do....	31.4	33.3	33.7	39.0	42.7	42.7	32.9	33.2	34.2	26.1	26.7	27.1	25.6	25.5	26.5
Chuck roast....do....	21.9	23.7	24.4	25.4	27.7	28.5	24.1	24.6	24.9	22.2	23.0	23.7	21.5	23.2	23.5
Plate beef.....do....	18.2	19.2	20.1	20.1	23.3	23.8	15.4	17.2	17.8	12.9	14.5	14.5	14.1	16.8	16.6
Pork chops.....do....	37.0	29.8	31.6	40.6	34.1	35.5	36.5	28.6	30.0	35.1	25.4	28.8	34.4	24.8	27.7
Bacon, sliced....do....	50.4	40.6	41.8	49.7	45.2	44.4	45.7	42.2	42.2	50.7	44.4	43.8	50.0	43.3	43.5
Ham, sliced.....do....	53.3	47.7	47.7	61.4	54.8	54.2	50.5	45.6	46.1	58.2	46.8	46.8	55.0	48.8	48.8
Lamb, leg of....do....	40.3	39.3	39.8	39.0	36.9	38.0	42.5	40.0	43.0	38.5	36.2	37.9	40.0	37.2	38.1
Hens.....do....	38.3	34.9	36.1	40.2	39.5	39.3	38.8	36.5	36.7	33.4	31.3	32.5	35.6	32.9	33.8
Salmon, canned, red ..pound..	37.7	37.9	36.7	30.3	34.4	34.6	33.1	35.9	36.9	35.1	35.9	36.1	34.4	35.5	36.0
Milk, fresh.....quart..	14.0	14.0	14.0	15.0	15.0	15.0	18.0	18.0	18.0	10.3	10.3	10.3	13.0	13.0	13.0
Milk, evaporated ..15–16 oz. can..	11.1	10.9	10.8	11.0	10.7	10.6	11.2	11.4	11.3	11.7	11.4	11.3	11.3	11.2	11.2
Butter.....pound..	58.9	58.2	57.4	60.3	57.9	55.6	61.0	59.8	59.1	55.5	52.9	50.7	56.6	53.7	51.1
Oleomargarine (all butter substitutes) ..pound..	28.9	29.2	28.2	29.7	27.8	27.6	28.3	25.0	25.0	26.3	25.9	26.0	28.1	28.0	27.5
Cheese.....do....	37.0	39.0	38.1	38.5	40.4	40.7	35.2	35.9	35.5	36.1	37.2	37.2	36.8	37.4	36.8
Lard.....do....	19.8	17.0	17.1	20.3	18.9	19.0	18.8	17.5	17.3	21.2	18.4	18.9	19.0	17.8	17.8
Vegetable lard substitute.....pound..	19.3	19.4	19.5	26.1	25.8	25.8	21.4	22.4	22.7	25.9	25.5	26.0	27.1	27.7	27.3
Eggs, strictly fresh ..dozen..	32.4	35.3	33.0	45.0	46.8	45.4	33.3	33.6	33.4	28.5	31.3	30.4	27.5	31.6	30.5
Bread.....pound..	8.8	8.7	8.8	9.6	8.8	8.8	9.9	9.9	9.9	10.1	9.6	9.6	10.0	10.0	10.0
Flour.....do....	6.7	6.6	6.7	5.5	5.1	5.2	5.7	5.5	5.4	4.6	4.3	4.3	5.3	5.0	5.1
Corn meal.....do....	4.1	4.1	4.1	6.5	6.7	6.6	4.4	4.7	4.6	4.8	4.5	4.5	4.7	4.9	4.8
Rolled oats.....do....	9.0	8.8	8.5	8.6	8.7	8.5	8.6	8.6	8.6	10.2	9.9	9.9	8.8	9.0	8.7
Corn flakes..8-oz. pkg..	10.0	9.4	9.4	9.5	9.2	8.8	9.8	9.7	9.7	11.5	10.1	10.1	10.7	9.7	9.7
Wheat cereal ..28-oz. pkg..	25.0	24.8	24.6	24.0	24.2	24.2	24.3	25.1	25.2	28.0	28.2	28.0	26.3	26.1	26.1
Macaroni.....pound..	10.4	10.7	10.7	20.9	20.7	20.8	19.1	19.0	19.0	21.2	20.9	20.8	18.7	19.0	18.6
Rice.....do....	9.6	9.4	9.1	10.0	10.0	10.2	11.6	11.1	11.1	11.0	10.8	10.6	11.6	10.6	10.7
Beans, navy.....do....	8.1	9.6	10.3	9.9	11.2	11.8	8.1	9.8	10.4	9.8	11.0	12.0	8.7	10.7	12.2
Potatoes.....do....	4.5	3.8	4.0	4.2	4.0	4.4	4.2	4.1	4.2	3.6	2.8	2.9	3.2	2.9	3.0
Onions.....do....	6.4	5.7	6.9	6.8	6.7	7.2	7.4	5.5	7.0	8.7	6.3	8.2	8.9	5.8	9.4
Cabbage.....do....	3.9	3.9	4.4	6.5	6.1	8.6	5.0	5.2	6.7	5.0	5.1	7.3	5.8	4.5	6.7
Beans, baked ..No. 2 can..	11.0	10.8	10.8	10.7	11.1	10.9	9.7	9.7	9.7	13.4	13.0	13.0	11.1	10.3	10.1
Corn, canned....do....	15.3	15.1	15.4	14.3	15.1	15.2	14.9	14.4	14.6	16.0	16.1	16.1	15.4	15.3	15.3
Peas, canned....do....	16.9	17.2	17.2	14.7	15.0	15.3	19.3	16.8	16.8	15.7	15.7	15.7	17.6	17.2	16.8
Tomatoes, canned ..No. 2 can..	11.4	10.5	10.5	11.4	11.1	11.1	9.8	9.7	9.6	13.1	13.3	13.3	12.7	12.5	12.6
Sugar.....pound..	6.7	6.5	6.5	6.3	6.3	6.4	7.0	6.7	6.9	7.9	7.1	7.2	8.6	8.0	8.0
Tea.....do....	80.0	79.2	78.5	66.3	67.1	68.0	93.2	95.4	95.8	79.7	77.5	77.8	71.7	67.2	67.0
Coffee.....do....	35.5	35.4	35.6	45.0	46.7	46.2	48.8	50.2	48.8	53.8	53.7	53.7	49.7	48.6	49.1
Prunes.....do....	16.5	13.9	13.7	13.7	12.4	12.5	15.3	13.7	13.0	16.1	14.2	14.7	18.0	16.0	15.4
Raisins.....do....	13.6	12.9	12.6	13.7	13.3	13.3	14.3	13.5	13.5	15.6	14.7	14.2	14.5	13.5	13.8
Bananas.....dozen..	17.1	17.1	16.4	38.9	38.5	38.9	32.8	33.9	31.1	[2] 11.3	[2] 11.2	[2] 9.6	[2] 10.5	[2] 9.8	[2] 8.7
Oranges.....do....	47.0	52.5	55.6	54.6	62.2	63.9	48.3	59.0	59.5	47.6	49.5	48.4	54.6	50.7	51.1

[2] Per pound.

TABLE 4.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES APRIL 15, 1927, AND MARCH 15 AND APRIL 15, 1928—Continued

Article	Philadelphia, Pa.			Pittsburgh, Pa.			Portland, Me.			Portland, Oreg.		
	Apr. 15, 1927	1928		Apr. 15, 1927	1928		Apr. 15, 1927	1928		Apr. 15, 1927	1928	
		Mar. 15	Apr. 15		Mar. 15	Apr. 15		Mar. 15	Apr. 15		Mar. 15	Apr. 15
	Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak, pound	[1] 56.3	[1] 60.3	[1] 60.4	46.8	49.8	50.0	[1] 61.1	[1] 65.3	[1] 65.3	31.6	34.4	35.3
Round steak, do	43.2	46.4	46.6	38.8	41.9	41.9	47.5	48.5	49.4	29.0	32.2	32.9
Rib roast, do	37.1	41.0	40.4	34.4	37.0	36.8	30.6	33.1	33.9	26.6	30.1	30.5
Chuck roast, do	26.5	30.2	30.6	26.4	29.4	29.4	21.9	24.7	24.7	20.4	23.8	24.1
Plate beef, do	13.2	17.9	17.8	13.7	17.0	17.1	18.0	19.2	19.6	14.9	18.6	18.9
Pork chops, do	40.7	31.4	35.0	39.5	29.4	32.9	37.1	27.5	31.7	36.8	30.3	30.1
Bacon, sliced, do	47.3	40.9	40.9	53.8	46.9	48.2	46.1	40.4	40.3	54.3	48.8	50.3
Hams, sliced, do	60.1	52.5	53.1	61.8	56.8	56.4	56.9	49.8	49.5	57.2	53.4	53.4
Lamb, leg of, do	42.0	39.6	41.6	42.4	40.7	41.6	39.8	37.5	38.9	38.0	37.0	38.1
Hens, do	41.6	40.1	40.6	44.1	43.6	44.7	41.7	41.3	41.6	36.5	34.4	34.8
Salmon, canned, red, do	27.8	32.4	32.5	30.5	34.6	34.4	30.4	35.6	35.6	33.2	35.7	35.7
Milk, fresh, quart	13.0	13.0	13.0	14.0	14.0	13.0	13.8	15.0	15.0	12.0	12.0	12.0
Milk, evaporated, 15–16 oz. can	11.6	11.7	11.6	11.0	10.3	10.4	12.6	12.3	12.2	10.5	10.3	10.3
Butter, pound	62.9	60.7	59.7	61.7	60.7	56.3	60.8	58.6	58.5	51.9	55.3	51.6
Oleomargarine (all butter substitutes), pound	30.3	28.6	28.5	31.3	28.6	28.5	28.0	27.3	26.6	28.8	25.5	25.6
Cheese, do	39.9	42.3	42.0	39.7	41.4	41.7	37.9	39.5	39.0	36.7	38.5	38.3
Lard, do	18.3	16.6	16.6	19.6	17.9	17.8	18.4	17.2	17.3	21.6	19.4	19.7
Vegetable lard substitute, do	25.7	25.0	25.0	27.5	27.0	27.1	26.0	26.2	26.2	28.6	28.7	28.5
Eggs, strictly fresh, dozen	35.8	40.3	39.5	35.8	39.1	39.1	39.6	43.6	40.9	29.1	30.4	29.6
Bread, pound	9.4	9.4	9.3	9.1	8.6	8.5	10.0	10.1	10.1	9.3	9.2	9.2
Flour, do	5.3	4.9	4.9	5.1	4.9	5.0	5.3	5.3	5.5	5.0	4.9	4.9
Corn meal, do	4.8	5.1	5.2	6.0	5.7	5.8	5.1	5.0	5.2	5.6	6.2	6.2
Rolled oats, do	8.7	8.4	8.6	9.2	9.0	9.0	7.8	8.1	8.0	10.3	10.7	10.7
Corn flakes, 8-oz. pkg	9.9	9.4	9.3	10.3	9.8	9.6	10.9	9.9	9.6	10.1	9.6	9.6
Wheat cereal, 28-oz. pkg	24.7	25.2	25.2	25.2	25.2	25.2	25.9	25.6	25.6	26.7	27.2	27.2
Macaroni, pound	20.7	20.9	20.6	23.6	22.9	22.3	24.7	23.2	23.3	18.4	18.5	18.5
Rice, do	11.3	11.0	10.4	12.0	11.2	11.1	12.7	11.4	11.1	10.1	10.4	10.2
Beans, navy, do	9.0	10.1	10.8	8.5	10.7	11.7	9.4	11.2	11.4	9.6	11.1	12.0
Potatoes, do	4.2	3.9	3.8	3.4	3.6	3.6	3.1	3.4	3.2	2.8	2.2	2.5
Onions, do	6.8	5.8	7.3	8.5	7.3	7.9	6.6	6.6	7.7	6.8	5.1	5.1
Cabbage, do	5.9	5.3	6.7	6.5	6.1	7.1	3.5	2.5	3.5	7.0	5.3	6.4
Beans, baked, No. 2 can	10.7	11.0	11.0	12.3	12.4	12.6	15.1	14.8	14.9	12.8	11.7	11.7
Corn, canned, do	14.4	14.7	14.7	16.0	16.4	16.1	15.8	14.8	14.6	19.7	18.0	18.0
Peas, canned, do	15.1	15.7	15.6	17.0	17.0	17.2	18.2	17.5	17.8	19.2	17.5	17.5
Tomatoes, canned, do	12.2	11.6	11.9	12.4	11.5	11.6	12.8	12.1	12.0	[4] 17.0	[4] 16.1	[4] 16.1
Sugar, pound	6.6	6.5	6.6	7.4	7.3	7.4	7.2	7.1	7.1	7.1	7.0	7.0
Tea, do	68.2	68.5	68.3	84.2	82.5	81.7	62.1	62.2	62.2	79.6	79.9	80.6
Coffee, do	41.2	42.9	42.9	49.7	47.7	48.2	51.2	51.6	51.6	51.7	52.9	52.9
Prunes, do	13.3	12.8	12.6	16.8	13.0	13.5	14.9	11.2	11.1	9.9	10.7	10.8
Raisins, do	13.8	13.3	13.1	14.1	13.4	13.6	13.3	12.8	12.6	13.7	12.9	12.8
Bananas, dozen	32.0	30.3	30.9	37.2	38.2	36.1	[3] 11.0	[3] 11.7	[3] 10.9	[3] 12.8	[3] 12.0	[3] 10.6
Oranges, do	49.5	53.5	57.5	48.2	53.6	55.0	51.1	58.0	64.4	47.8	49.1	50.4

[1] The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.
[3] Per pound.
[4] No. 2½ can.

TABLE 4.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES APRIL 15, 1927, AND MARCH 15 AND APRIL 15, 1928—Continued

Article	Providence, R. I.			Richmond, Va.			Rochester, N. Y.			St. Louis, Mo.		
	Apr. 15, 1927	1928		Apr. 15, 1927	1928		Apr. 15, 1927	1928		Apr. 15, 1927	1928	
		Mar. 15	Apr. 15		Mar. 15	Apr. 15		Mar. 15	Apr. 15		Mar. 15	Apr. 15
	Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak, pound	[1]72.0	[1]77.5	[1]76.9	40.2	43.4	43.8	40.6	45.0	45.1	36.6	39.5	39.9
Round steak, do	50.1	51.5	52.7	35.9	38.8	39.1	34.0	37.9	37.7	35.6	38.7	38.9
Rib roast, do	39.0	41.2	40.8	32.6	33.9	34.4	30.6	33.6	33.5	30.6	32.1	32.9
Chuck roast, do	29.8	32.6	32.2	23.5	25.5	25.7	24.5	28.1	27.5	21.6	24.2	24.3
Plate beef, do	17.8	20.8	21.1	17.0	18.8	18.7	13.9	16.6	16.4	15.0	17.6	17.5
Pork chops, do	39.6	30.9	34.6	36.4	29.1	29.7	39.5	31.0	33.3	32.6	22.4	27.8
Bacon, sliced, do	44.6	39.2	40.5	44.9	40.8	40.7	43.8	37.8	36.4	43.5	39.0	39.3
Ham, sliced, do	61.2	53.5	54.3	45.9	44.3	45.1	56.5	50.4	50.8	53.7	48.8	49.5
Lamb, leg of, do	43.3	39.9	42.3	45.7	44.4	44.8	40.2	38.9	41.0	39.0	37.3	39.7
Hens, do	42.6	40.8	41.8	38.3	36.1	37.9	42.3	40.7	40.7	36.7	33.9	35.4
Salmon, canned, red, do	33.0	33.5	33.7	33.9	34.7	35.0	30.7	36.3	35.9	33.7	35.8	35.3
Milk, fresh, quart	14.3	15.7	15.7	14.0	14.0	14.0	12.5	13.5	13.5	13.0	13.0	13.0
Milk, evaporated, 15–16 oz. can	12.1	11.7	11.5	12.5	12.3	12.1	11.4	11.3	11.2	10.5	10.2	10.0
Butter, pound	59.9	56.6	55.9	62.3	59.8	59.9	58.9	56.6	55.1	60.8	59.8	56.3
Oleomargarine (all butter substitutes), pound	28.9	27.1	26.5	31.3	29.6	29.6	29.6	28.4	28.3	27.0	26.9	27.1
Cheese, do	36.9	38.5	38.4	36.7	37.0	37.2	36.8	38.8	39.0	36.3	37.2	37.0
Lard, do	18.2	17.2	17.3	18.3	17.3	17.2	17.9	17.1	16.8	15.1	13.6	13.7
Vegetable lard substitute, do	26.9	26.3	26.5	25.8	25.5	25.5	24.1	26.2	26.5	25.7	25.2	25.3
Eggs, strictly fresh, dozen	43.2	48.2	42.8	30.9	32.9	33.7	30.8	39.4	35.3	29.7	35.4	34.3
Bread, pound	9.2	9.0	9.0	9.4	9.1	9.0	9.0	9.1	9.1	9.9	9.8	9.6
Flour, do	5.8	5.5	5.6	5.5	5.2	5.1	5.3	5.2	5.3	5.1	5.1	5.1
Corn meal, do	5.0	5.1	5.1	4.6	4.8	4.8	5.6	6.2	6.2	4.2	4.2	4.3
Rolled oats, do	9.1	9.0	8.9	8.7	8.6	8.6	9.2	9.1	9.2	8.5	8.2	8.1
Corn flakes, 8-oz. pkg.	10.4	9.5	9.5	10.0	9.7	9.8	9.9	9.4	9.3	9.3	9.2	8.9
Wheat cereal, 28-oz. pkg.	25.1	24.4	24.6	25.6	26.2	26.0	25.0	25.4	25.1	24.6	24.8	24.8
Macaroni, pound	23.3	22.9	22.9	20.4	20.2	20.2	19.7	21.2	21.2	19.9	19.3	19.4
Rice, do	11.3	10.3	10.3	12.1	11.4	11.3	10.4	9.6	9.5	9.9	9.7	9.7
Beans, navy, do	9.4	10.9	12.0	8.6	11.1	11.2	8.6	10.6	12.2	7.8	10.0	11.2
Potatoes, do	3.5	3.6	3.4	4.6	3.8	4.0	2.4	3.2	3.1	4.0	3.4	3.3
Onions, do	6.6	6.7	7.4	7.7	6.4	7.2	5.6	6.4	6.7	7.2	6.0	7.3
Cabbage, do	5.8	5.5	8.5	6.8	5.9	7.3	6.2	4.0	5.8	4.3	4.8	6.7
Beans, baked, No. 2 can	11.6	10.8	10.8	10.1	10.1	10.1	10.5	10.2	10.2	10.3	10.2	10.3
Corn, canned, do	17.0	17.1	17.0	15.3	14.6	14.8	15.3	16.3	16.3	15.4	15.3	15.1
Peas, canned, do	18.3	18.5	18.5	20.0	18.1	18.1	16.4	17.9	17.7	15.3	15.3	15.3
Tomatoes, canned, do	13.0	12.9	13.1	10.4	10.5	10.5	13.5	14.5	14.6	11.4	11.1	10.8
Sugar, pound	7.0	6.8	7.0	7.1	7.0	7.0	6.9	6.4	6.6	7.3	7.1	7.2
Tea, do	60.6	60.0	60.0	92.1	90.5	88.8	69.8	69.0	69.0	76.7	75.8	74.5
Coffee, do	51.0	51.0	51.1	46.9	47.2	46.8	45.5	46.4	46.6	46.6	46.7	46.8
Prunes, do	14.6	13.1	13.1	15.0	14.0	14.4	16.6	13.3	13.9	18.1	14.3	14.6
Raisins, do	14.1	13.7	13.5	14.3	13.1	13.1	14.6	13.6	13.6	14.2	13.7	13.8
Bananas, dozen	32.5	33.3	34.3	37.5	40.5	37.7	35.0	40.0	36.7	33.1	31.9	31.5
Oranges, do	54.7	63.0	63.5	45.0	55.0	55.4	49.6	55.1	57.4	48.3	50.5	52.6

[1] The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

TABLE 4.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES APRIL 15, 1927, AND MARCH 15 AND APRIL 15, 1928—Continued

Article	St. Paul, Minn.			Salt Lake City, Utah			San Francisco, Calif.			Savannah, Ga.		
	Apr. 15, 1927	1928		Apr. 15, 1927	1928		Apr. 15, 1927	1928		Apr. 15, 1927	1928	
		Mar. 15	Apr. 15		Mar. 15	Apr. 15		Mar. 15	Apr. 15		Mar. 15	Apr. 15
	Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak, pound	36.2	39.7	39.4	32.5	35.9	36.0	33.9	37.7	37.7	36.0	37.8	40.0
Round steak, do	31.4	34.7	34.2	30.0	33.6	33.8	31.0	35.6	35.6	28.0	31.1	33.9
Rib roast, do	29.7	32.4	32.5	25.2	27.2	27.2	31.0	34.2	33.9	28.0	28.9	30.6
Chuck roast, do	24.1	26.2	26.9	20.3	22.1	22.9	20.6	23.7	23.6	19.3	20.6	22.8
Plate beef, do	13.9	16.1	16.2	14.3	16.7	16.8	16.1	18.8	18.6	15.3	18.7	19.1
Pork chops, do	34.1	25.4	28.7	38.1	30.2	31.2	43.3	36.0	36.9	33.8	29.0	28.1
Bacon, sliced, do	45.9	42.5	42.8	50.0	43.5	43.7	59.3	54.8	54.8	44.3	40.4	37.8
Ham, sliced, do	52.8	44.7	43.9	61.1	51.5	51.5	64.5	59.8	58.9	46.4	43.5	41.5
Lamb, leg of, do	36.9	33.9	37.1	36.9	36.4	36.8	39.2	39.5	40.4	40.0	39.0	38.8
Hens, do	33.1	33.9	34.8	33.2	31.6	32.8	43.9	43.2	42.4	35.8	30.0	31.2
Salmon, canned, red, do	36.3	39.9	39.6	35.1	34.5	34.9	30.4	32.1	32.3	33.1	35.3	36.0
Milk, fresh, quart	11.0	12.0	12.0	10.3	10.0	10.0	14.0	14.0	14.0	17.3	17.0	17.0
Milk, evaporated, 15–16 oz. can	11.6	12.2	11.8	10.5	10.2	10.1	10.1	10.0	10.0	11.3	10.9	10.9
Butter, pound	54.3	54.3	50.0	52.1	51.5	47.9	52.7	54.1	50.3	60.1	58.5	58.4
Oleomargarine (all butter substitutes), pound	25.6	24.2	24.4	29.2	26.4	26.3	30.3	25.4	25.4	33.6	30.7	30.8
Cheese, do	36.0	37.3	36.6	30.4	30.9	30.6	39.2	40.9	41.0	36.0	34.8	35.2
Lard, do	18.3	17.6	18.0	22.3	20.1	20.1	23.3	22.3	21.9	18.6	16.2	16.3
Vegetable lard substitute, do	28.1	28.5	28.3	29.2	29.1	29.1	28.5	27.6	27.5	16.7	16.5	16.6
Eggs, strictly fresh, dozen	29.6	33.8	33.6	28.8	26.8	29.2	32.6	33.6	33.7	33.1	31.7	32.7
Bread, pound	10.0	9.3	9.3	9.7	9.8	9.8	9.6	9.5	9.5	10.8	10.6	10.6
Flour, do	5.3	5.0	5.1	4.0	4.2	4.3	5.8	5.7	5.7	6.6	6.6	6.7
Corn meal, do	5.2	5.2	5.3	5.5	5.3	5.5	6.3	6.9	6.9	3.4	3.7	3.7
Rolled oats, do	10.2	9.8	9.8	8.9	8.4	8.4	9.8	10.0	10.0	8.6	8.7	8.7
Corn flakes, 8-oz. pkg.	10.9	10.2	10.2	11.4	10.8	10.5	10.5	9.9	9.7	9.5	9.5	9.6
Wheat cereal, 28-oz. pkg.	26.4	26.3	26.3	25.5	25.3	25.1	25.4	25.2	25.2	24.3	24.4	24.3
Macaroni, pound	18.7	18.7	18.7	20.3	19.6	19.3	15.5	15.7	15.7	18.0	18.0	18.0
Rice, do	11.1	10.9	10.8	9.1	9.2	8.9	11.4	10.6	10.5	9.7	9.2	9.2
Beans, navy, do	9.5	11.1	11.7	8.9	10.1	10.3	9.4	11.0	11.3	9.3	10.3	10.8
Potatoes, do	2.8	2.4	2.4	2.8	1.8	1.8	3.9	3.1	3.5	4.4	4.0	4.3
Onions, do	8.4	5.6	6.3	5.9	3.9	4.3	6.9	5.5	5.9	8.7	7.0	8.3
Cabbage, do	5.1	5.0	7.4	5.3	4.2	6.6	----	----	----	4.0	5.6	5.7
Beans, baked, No. 2 can	13.9	13.3	13.4	13.8	12.4	12.1	12.7	13.0	13.0	12.2	11.6	11.3
Corn, canned, do	14.3	14.8	15.1	14.8	14.0	14.1	17.9	17.7	17.5	15.4	14.9	15.2
Peas, canned, do	15.7	15.2	15.5	15.8	15.3	15.0	17.7	18.1	18.3	17.3	16.1	16.2
Tomatoes, canned, do	14.3	13.6	13.8	13.4	14.1	13.9	[4] 14.7	[4] 14.3	[4] 14.4	10.2	9.7	9.5
Sugar, pound	7.5	7.3	7.4	8.1	8.0	7.8	7.0	6.9	6.9	7.1	6.8	6.9
Tea, do	66.9	67.0	66.3	86.5	83.6	83.9	71.8	71.4	71.4	81.5	81.6	81.9
Coffee, do	51.8	52.5	52.9	55.4	54.5	53.8	51.7	53.3	53.3	45.5	44.7	45.6
Prunes, do	15.8	13.7	13.9	15.0	12.0	12.0	13.1	11.7	12.0	14.0	12.2	12.9
Raisins, do	15.2	14.5	14.5	13.6	12.9	13.0	13.3	11.9	11.9	14.6	13.6	13.6
Bananas, dozen	[3] 10.7	[3] 10.7	[3] 9.8	[3] 12.8	[3] 12.4	[3] 12.1	31.1	31.1	31.1	27.9	28.3	26.7
Oranges, do	47.5	57.5	59.8	44.5	47.3	50.5	50.7	53.6	53.9	38.7	46.2	50.4

[3] Per pound.

[4] No. 2½ can.

TABLE 4.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES APRIL 15, 1927, AND MARCH 15 AND APRIL 15, 1928—Continued

Article	Scranton, Pa.			Seattle, Wash.			Springfield, Ill.			Washington, D. C.		
	Apr. 15, 1927	1928		Apr. 15, 1927	1928		Apr. 15, 1927	1928		Apr. 15, 1927	1928	
		Mar. 15	Apr. 15		Mar. 15	Apr. 15		Mar. 15	Apr. 15		Mar. 15	Apr. 15
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak, pound	50.3	55.1	54.8	34.5	38.4	40.4	36.3	38.9	40.3	46.2	48.7	49.2
Round steak, do	42.3	46.8	46.6	31.1	35.0	35.0	35.8	38.5	39.8	39.3	42.0	42.8
Rib roast, do	37.6	38.8	38.6	28.9	31.1	31.4	34.8	25.6	26.5	34.4	35.5	35.6
Chuck roast, do	27.8	30.2	30.1	21.1	25.1	25.1	22.0	24.0	24.7	25.0	27.2	27.2
Plate beef, do	12.9	15.4	15.4	16.3	19.1	19.3	15.0	16.7	17.1	13.9	16.3	16.6
Pork chops, do	41.0	29.5	31.7	39.7	33.7	34.2	32.9	25.2	27.0	39.4	28.8	34.6
Bacon, sliced, do	48.1	44.2	43.1	57.7	53.0	53.4	48.3	43.6	42.7	46.9	39.6	39.0
Ham, sliced, do	61.1	54.3	53.7	61.8	55.9	56.7	53.8	45.9	46.4	58.3	53.7	54.1
Lamb, leg of, do	47.0	43.8	44.4	37.3	36.8	39.1	41.1	39.1	41.6	41.2	39.7	44.4
Hens, do	46.1	44.0	43.5	35.4	33.5	33.3	36.4	33.7	34.3	41.5	40.4	40.3
Salmon, canned, red, do	34.6	36.6	36.0	35.2	36.6	36.8	36.4	37.1	37.2	30.6	35.1	34.7
Milk, fresh, quart	12.0	13.0	13.0	12.0	12.0	12.0	14.4	14.4	14.4	15.0	15.0	15.0
Milk, evaporated, 15–16 oz. can	11.9	11.9	11.8	10.6	10.3	10.3	11.6	11.9	11.7	12.0	11.9	11.9
Butter, pound	60.1	57.3	56.9	53.0	55.6	51.5	57.8	55.6	55.1	61.5	61.0	58.8
Oleomargarine (all butter substitutes), pound	29.0	27.8	27.0	28.2	25.1	25.1	28.7	28.2	28.1	30.2	28.5	27.8
Cheese, do	36.0	38.1	37.5	34.7	36.2	36.2	36.8	38.5	38.3	40.3	40.7	40.2
Lard, do	19.8	18.5	18.5	20.7	20.5	20.0	19.1	17.3	17.6	17.5	16.6	16.5
Vegetable lard substitute, do	26.4	26.3	26.1	27.2	27.3	27.3	27.5	27.8	27.5	24.7	24.8	24.7
Eggs, strictly fresh, dozen	36.2	42.6	38.1	32.3	34.6	34.1	28.6	33.8	31.7	34.9	37.8	37.3
Bread, pound	10.7	10.6	10.6	9.7	9.7	9.6	10.1	10.2	10.2	9.1	8.9	8.9
Flour, do	5.9	5.8	5.7	4.9	4.9	5.0	5.6	5.2	5.2	5.7	5.5	5.7
Corn meal, do	7.9	7.5	7.5	5.7	5.5	5.9	4.6	4.6	4.8	5.1	5.3	5.0
Rolled oats, do	9.9	9.8	9.8	9.3	8.4	8.5	10.1	9.7	9.7	9.2	9.2	9.2
Corn flakes, 8-oz. pkg.	10.3	10.1	10.1	10.5	9.8	9.6	10.8	10.1	10.0	9.8	9.5	9.4
Wheat cereal, 28-oz. pkg.	25.3	25.3	25.3	27.4	26.4	26.7	26.9	27.9	27.9	24.4	24.9	24.4
Macaroni, pound	23.1	22.6	22.6	18.1	17.9	17.7	19.0	18.8	18.8	22.8	23.4	22.6
Rice, do	10.9	10.4	10.4	12.1	10.6	10.4	10.7	10.1	10.5	11.6	11.4	11.1
Beans, navy, do	11.2	11.2	11.2	9.8	11.1	12.3	9.1	11.7	13.5	8.6	10.1	11.3
Potatoes, do	3.3	3.4	3.6	3.1	2.2	2.3	3.5	3.2	3.4	4.2	4.0	4.1
Onions, do	6.5	6.2	8.1	7.0	5.1	5.8	9.0	6.3	7.6	6.5	6.8	8.7
Cabbage, do	5.9	5.9	7.2	6.6	5.3	6.5	6.2	5.1	7.2	5.4	5.9	7.2
Beans, baked, No. 2 can	11.3	11.2	11.2	12.1	11.5	11.6	10.8	10.1	10.7	10.1	10.5	10.4
Corn, canned, do	16.7	17.1	16.7	17.0	18.0	18.2	15.3	15.2	15.2	15.2	15.8	15.3
Peas, canned, do	17.7	17.3	17.0	19.2	19.2	19.0	16.2	16.3	16.4	17.2	15.4	15.4
Tomatoes, canned, do	12.3	12.2	11.9	[4]17.2	[4]16.0	[4]15.7	13.9	13.7	13.5	10.2	10.6	10.6
Sugar, pound	7.2	7.0	7.1	7.2	7.0	7.1	7.9	7.6	7.6	6.9	6.7	6.9
Tea, do	71.2	72.1	71.5	76.3	76.4	76.2	83.5	84.6	83.1	92.5	95.5	95.0
Coffee, do	51.3	50.4	50.4	49.6	51.0	51.3	51.4	51.5	52.2	45.3	46.9	47.8
Prunes, do	16.8	14.3	14.5	13.7	12.0	12.0	15.1	14.0	14.3	16.1	14.4	14.3
Raisins, do	14.4	13.7	13.8	13.8	13.0	13.1	15.5	14.3	14.3	14.3	13.5	13.6
Bananas, dozen	33.6	32.0	32.7	11.2	11.7	[2]9.5	[2]9.5	[2]9.4	[2]8.5	33.1	33.9	30.4
Oranges, do	54.3	58.9	61.5	47.7	51.7	53.6	52.6	52.8	55.9	47.4	58.1	60.0

[2] Per pound.

[4] No. 2½ can.

Comparison of Retail Food Costs in 51 Cities

TABLE 5 shows for 39 cities the percentage of increase or decrease in the retail cost of food [3] in April, 1928, compared with the average cost in the year 1913, in April, 1927, and March, 1928. For 12 other cities comparisons are given for the one-year and the one-month periods; these cities have been scheduled by the bureau at different dates since 1913. The percentage changes are based on actual retail prices secured each month from retail dealers and on the average family consumption of these articles in each city.[4]

[3] For list of articles see note 1, p. 151.

[4] The consumption figures used from January, 1913, to December, 1920, for each article in each city are given in the Labor Review for November, 1918, pp. 94 and 95. The consumption figures which have been used for each month beginning with January, 1921, are given in the Labor Review for March, 1921, p. 26.

TABLE 5.—PERCENTAGE CHANGE IN THE RETAIL COST OF FOOD IN APRIL, 1928, COMPARED WITH THE COST IN MARCH, 1928, APRIL, 1927, AND WITH THE AVERAGE COST IN THE YEAR 1913 BY CITIES

City	Percentage increase, April, 1928 compared with 1913	Percentage decrease, April, 1928 compared with April, 1927	Percentage increase, April, 1928 compared with March, 1928	City	Percentage increase, April, 1928 compared with 1913	Percentage decrease, April, 1928 compared with April, 1927	Percentage increase, April, 1928 compared with March, 1928
Atlanta	56.6	0.9	1.9	Minneapolis	53.9	[2] 1.6	1.0
Baltimore	56.4	1.5	0.9	Mobile		1.3	0.2
Birmingham	55.2	3.0	0.3	Newark	47.9	0.0	0.0
Boston	53.0	0.8	[1] 1.3	New Haven	53.2	[2] 0.4	[1] 0.2
Bridgeport		0.7	[1] 0.7	New Orleans	51.3	1.4	1.0
Buffalo	57.0	[2] 0.6	0.1	New York	56.3	1.1	0.8
Butte		2.0	0.4	Norfolk		1.2	0.6
Charleston, S. C	55.6	0.6	1.8	Omaha	44.3	4.2	1.3
Chicago	62.0	0.5	0.7	Peoria		2.3	1.4
Cincinnati	53.6	0.9	0.7	Philadelphia	56.8	0.4	0.3
Cleveland	52.2	0.0	0.9	Pittsburgh	51.6	2.4	[1] 1.2
Columbus		3.7	0.4	Portland, Me		[2] 1.3	0.1
Dallas	51.8	0.0	0.2	Portland, Oreg	36.9	0.1	0.1
Denver	37.2	1.2	1.2	Providence	54.5	[2] 0.4	[1] 0.1
Detroit	58.0	1.4	0.2	Richmond	58.6	1.8	0.8
Fall River	51.2	[2] 1.1	0.1	Rochester		[2] 3.2	[1] 0.5
Houston		1.2	1.0	St. Louis	55.0	1.4	0.6
Indianapolis	48.9	[2] 1.1	1.2	St. Paul		0.7	0.6
Jacksonville	41.2	4.9	0.1	Salt Lake City	28.0	3.3	0.2
Kansas City	49.8	[2] 0.1	0.5	San Francisco	47.9	0.6	[1] 0.1
Little Rock	46.7	0.1	1.6	Savannah		1.1	1.6
Los Angeles	39.7	0.9	0.4	Scranton	59.5	[2] 0.6	0.0
Louisville	50.8	[2] 0.4	1.0	Seattle	41.9	0.8	[1] 0.2
Manchester	50.7	[2] 0.5	[1] 0.2	Springfield, Ill		0.5	1.5
Memphis	45.5	[2] 1.1	1.1	Washington, D. C	60.1	0.0	1.2
Milwaukee	53.7	[2] 0.7	0.5				

[1] Decrease [2] Increase.

Effort has been made by the bureau each month to have all schedules for each city included in the average prices. For the month of April 99 per cent of all the firms supplying retail prices in the 51 cities sent in a report promptly. The following-named 44 cities had a perfect record; that is, every merchant who is cooperating with the bureau sent in his report in time for his prices to be included in the city averages: Atlanta, Baltimore, Boston, Bridgeport, Buffalo, Butte, Charleston, S. C., Cincinnati, Cleveland, Columbus, Dallas, Denver, Detroit, Fall River, Houston, Indianapolis, Jacksonville, Kansas City, Little Rock, Louisville, Manchester, Memphis, Milwaukee, Minneapolis, Mobile, Newark, New Haven, New Orleans, New York, Norfolk, Omaha, Peoria, Philadelphia, Portland, Me., Providence, Richmond, Rochester, St. Louis, St. Paul, San Francisco, Savannah, Scranton, Springfield, Ill., and Washington, D. C.

The following summary shows the promptness with which the merchants responded in April, 1928:

RETAIL PRICE REPORTS RECEIVED FOR APRIL, 1928

Item	United States	Geographic division				
		North Atlantic	South Atlantic	North Central	South Central	Western
Percentage of reports received	99.0	99.7	100	99.7	99.4	96.0
Number of cities in each section from which every report was received	44	13	8	13	7	3

Retail Prices of Coal in the United States [a]

THE following table shows the average retail prices of coal on January 15 and July 15, 1913, April 15, 1927, and March 15 and April 15, 1928, for the United States and for each of the cities from which retail food prices have been obtained. The prices quoted are for coal delivered to consumers, but do not include charges for storing the coal in cellar or coal bin where an extra handling is necessary.

In addition to the prices for Pennsylvania anthracite, prices are shown for Colorado, Arkansas, and New Mexico anthracite in those cities where these coals form any considerable portion of the sales for household use.

The prices shown for bituminous coal are averages of prices of the several kinds sold for household use.

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JANUARY 15 AND JULY 15, 1913, APRIL 15, 1927, AND MARCH 15 AND APRIL 15, 1928

City, and kind of coal	1913		1927	1928	
	Jan. 15	July 15	Apr. 15	Mar. 15	Apr. 15
United States:					
Pennsylvania anthracite—					
Stove—					
Average price	**$7.99**	**$7.46**	**$14.94**	**$15.43**	**$14.95**
Index (1913=100)	**103.4**	**96.6**	**193.4**	**199.8**	**193.4**
Chestnut—					
Average price	**$8.15**	**$7.68**	**$14.61**	**$15.08**	**$14.64**
Index (1913=100)	**103.0**	**97.0**	**184.6**	**190.5**	**185.0**
Bituminous—					
Average price	**$5.48**	**$5.39**	**$8.95**	**$9.26**	**$8.94**
Index (1913=100)	**100.8**	**99.2**	**164.7**	**170.4**	**164.6**
Atlanta, Ga.:					
Bituminous	$5.88	$4.83	$7.37	$7.88	$7.37
Baltimore, Md.:					
Pennsylvania anthracite—					
Stove	[1] 7.70	[1] 7.24	[1] 15.25	[1] 16.00	[1] 15.17
Chestnut	[1] 7.93	[1] 7.49	[1] 14.50	[1] 15.25	[1] 14.63
Bituminous			8.18	8.07	8.00
Birmingham, Ala.:					
Bituminous	4.22	4.01	6.98	7.76	6.94
Boston, Mass.:					
Pennsylvania anthracite—					
Stove	8.25	7.50	15.75	16.25	15.50
Chestnut	8.25	7.75	15.50	16.00	15.25
Bridgeport, Conn.:					
Pennsylvania anthracite—					
Stove			14.63	14.88	14.50
Chestnut			14.63	14.88	14.50
Buffalo, N. Y.:					
Pennsylvania anthracite—					
Stove	6.75	6.54	13.42	14.01	13.46
Chestnut	6.99	6.80	13.02	13.61	13.06
Butte, Mont.:					
Bituminous			10.93	10.89	10.89
Charleston, S. C.:					
Bituminous	[1] 6.75	[1] 6.75	11.00	11.00	11.00
Chicago, Ill.:					
Pennsylvania anthracite—					
Stove	8.00	7.80	16.25	16.95	16.95
Chestnut	8.25	8.05	15.75	16.46	16.46
Bituminous	4.97	4.65	8.89	9.21	9.20
Cincinnati, Ohio:					
Bituminous	3.50	3.38	6.83	7.10	6.53
Cleveland, Ohio:					
Pennsylvania anthracite—					
Stove	7.50	7.25	15.00	15.15	15.05
Chestnut	7.75	7.50	14.50	14.75	14.50
Bituminous	4.14	4.14	8.66	8.96	8.50

[1] Per ton of 2,240 pounds.

[a] Prices of coal were formerly secured semiannually and published in the March and September issues of the Labor Review. Since July, 1920, these prices have been secured and published monthly.

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JANUARY 15 AND JULY 15, 1913, APRIL 15, 1927, AND MARCH 15 AND APRIL 15, 1928—Continued

City, and kind of coal	1913		1927	1928	
	Jan. 15	July 15	Apr. 15	Mar. 15	Apr. 15
Columbus, Ohio:					
Bituminous			$6.67	$6.85	$6.25
Dallas, Tex.:					
Arkansas anthracite—					
Egg			16.00	15.50	15.50
Bituminous	$8.25	$7.21	13.00	12.70	12.70
Denver, Colo.:					
Colorado anthracite—					
Furnace, 1 and 2 mixed	8.88	9.00	15.80	16.00	15.60
Stove, 3 and 5 mixed	8.50	8.50	16.15	16.00	15.60
Bituminous	5.25	4.88	9.08	10.45	9.29
Detroit, Mich.:					
Pennsylvania anthracite—					
Stove	8.00	7.45	15.83	16.00	16.00
Chestnut	8.25	7.65	15.33	15.50	15.50
Bituminous	5.20	5.20	9.57	9.33	9.23
Fall River, Mass.:					
Pennsylvania anthracite—					
Stove	8.25	7.43	16.25	16.75	16.00
Chestnut	8.25	7.61	15.75	16.25	15.75
Houston, Tex.:					
Bituminous			11.40	12.60	11.40
Indianapolis, Ind.:					
Bituminous	3.81	3.70	6.84	7.22	6.77
Jacksonville, Fla.:					
Bituminous	7.50	7.00	14.00	14.00	14.00
Kansas City, Mo.:					
Arkansas anthracite—					
Furnace			12.90	13.50	12.50
Stove No. 4			14.67	15.17	14.50
Bituminous	4.39	3.94	7.65	7.50	7.44
Little Rock, Ark.:					
Arkansas anthracite—					
Egg			14.00	13.50	13.50
Bituminous	6.00	5.33	10.70	10.60	10.15
Los Angeles, Calif.:					
Bituminous	13.52	12.50	16.50	16.50	16.50
Louisville, Ky.:					
Bituminous	4.20	4.00	6.07	7.45	6.01
Manchester, N. H.:					
Pennsylvania anthracite—					
Stove	10.00	8.50	16.50	17.50	16.25
Chestnut	10.00	8.50	16.25	17.25	16.00
Memphis, Tenn.:					
Bituminous	[2] 4.34	[2] 4.22	8.72	8.33	8.37
Milwaukee, Wis.:					
Pennsylvania anthracite—					
Stove	8.00	7.85	16.15	16.65	15.75
Chestnut	8.25	8.10	15.70	16.20	15.45
Bituminous	6.25	5.71	9.23	9.48	9.13
Minneapolis, Minn.:					
Pennsylvania anthracite—					
Stove	9.25	9.05	17.65	18.15	18.15
Chestnut	9.50	9.30	17.20	17.70	17.70
Bituminous	5.89	5.79	10.91	11.74	11.74
Mobile, Ala.:					
Bituminous			9.19	9.50	9.23
Newark, N. J.:					
Pennsylvania anthracite—					
Stove	6.50	6.25	13.50	14.00	13.60
Chestnut	6.75	6.50	13.00	13.50	13.10
New Haven, Conn.:					
Pennsylvania anthracite—					
Stove	7.50	6.25	14.65	15.10	15.20
Chestnut	7.50	6.25	14.65	15.10	15.20
New Orleans, La.:					
Bituminous	[2] 6.06	[2] 6.06	10.00	11.29	10.93
New York, N. Y.:					
Pennsylvania anthracite—					
Stove	7.07	6.66	13.75	14.75	14.25
Chestnut	7.14	6.80	13.50	14.42	13.75
Norfolk, Va.:					
Pennsylvania anthracite—					
Stove			14.00	15.00	15.00
Chestnut			14.00	15.00	15.00
Bituminous			8.27	9.05	9.05

[2] Per 10-barrel lot (1,800 pounds).

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JANUARY 15 AND JULY 15, 1913, APRIL 15, 1927, AND MARCH 15 AND APRIL 15, 1928—Continued

City, and kind of coal	1913		1927	1928	
	Jan. 15	July 15	Apr. 15	Mar. 15	Apr. 15
Omaha, Nebr.:					
Bituminous	$6.63	$6.13	$10.18	$10.13	$10.16
Peoria, Ill.:					
Bituminous	----	----	7.09	6.94	6.94
Philadelphia, Pa.:					
Pennsylvania anthracite—					
Stove	[1] 7.16	[1] 6.89	[1] 14.75	[1] 14.93	[1] 13.39
Chestnut	[1] 7.38	[1] 7.14	[1] 14.25	[1] 14.43	[1] 13.11
Pittsburgh, Pa.:					
Pennsylvania anthracite—					
Chestnut	[1] 8.00	[1] 7.44	15.50	14.88	14.88
Bituminous	[3] 3.16	[3] 3.18	6.24	5.44	5.51
Portland, Me.:					
Pennsylvania anthracite—					
Stove	----	----	16.56	16.80	16.56
Chestnut	----	----	16.56	16.80	16.56
Portland, Oreg.:					
Bituminous	9.79	9.66	13.31	13.21	13.35
Providence, R. I.:					
Pennsylvania anthracite—					
Stove	[4] 8.25	[4] 7.50	[4] 15.75	[4] 16.25	[4] 15.50
Chestnut	[4] 8.25	[4] 7.75	[4] 15.50	[4] 16.00	[4] 15.50
Richmond, Va.:					
Pennsylvania anthracite—					
Stove	8.00	7.25	16.00	15.50	14.00
Chestnut	8.00	7.25	16.00	15.50	14.00
Bituminous	5.50	4.94	10.04	9.61	8.37
Rochester, N. Y.:					
Pennsylvania anthracite—					
Stove	----	----	14.10	14.60	14.10
Chestnut	----	----	13.65	14.15	13.75
St. Louis, Mo.:					
Pennsylvania anthracite—					
Stove	8.44	7.74	16.40	16.90	16.60
Chestnut	8.68	7.99	16.10	16.45	16.25
Bituminous	3.36	3.04	7.31	6.96	7.01
St. Paul, Minn.:					
Pennsylvania anthracite—					
Stove	9.20	9.05	17.65	18.15	18.15
Chestnut	9.45	9.30	17.20	17.70	17.70
Bituminous	6.07	6.04	11.10	11.96	11.98
Salt Lake City, Utah:					
Colorado anthracite—					
Furnace, 1 and 2 mixed	11.00	11.50	18.00	18.00	18.00
Stove, 3 and 5 mixed	11.00	11.50	18.00	18.00	18.00
Bituminous	5.64	5.46	8.45	8.36	8.49
San Francisco, Calif.:					
New Mexico anthracite—					
Cerillos egg	17.00	17.00	26.25	26.50	26.50
Colorado anthracite—					
Egg	17.00	17.00	25.75	25.75	25.75
Bituminous	12.00	12.00	16.90	16.88	17.25
Savannah, Ga.:					
Bituminous	----	----	[5] 10.50	[5] 11.13	[5] 10.63
Scranton, Pa.:					
Pennsylvania anthracite—					
Stove	4.25	4.31	10.25	10.75	10.28
Chestnut	4.50	4.56	10.00	10.50	9.92
Seattle, Wash.:					
Bituminous	7.63	7.70	10.47	10.18	10.14
Springfield, Ill.:					
Bituminous	----	----	4.47	4.44	4.44
Washington, D. C.:					
Pennsylvania anthracite—					
Stove	[1] 7.50	[1] 7.38	[1] 14.99	[1] 15.51	[1] 14.86
Chestnut	[1] 7.65	[1] 7.53	[1] 14.48	[1] 15.01	[1] 14.49
Bituminous—					
Prepared sizes, low volatile	----	----	[1] 10.33	[1] 10.75	[1] 10.50
Prepared sizes, high volatile	----	----	[1] 8.75	[1] 8.75	[1] 8.63
Run of mine, mixed	----	----	[1] 7.78	[1] 7.88	[1] 7.60

[1] Per ton of 2,240 pounds.
[3] Per 25-bushel lot (1,900 pounds).
[4] The average price of coal delivered in bin is 50 cents higher than here shown. Practically all coal is delivered in bin.
[5] All coal sold in Savannah is weighed by the city. A charge of 10 cents per ton or half ton is made. This additional charge has been included in the above price.

Index Numbers of Wholesale Prices in April, 1928

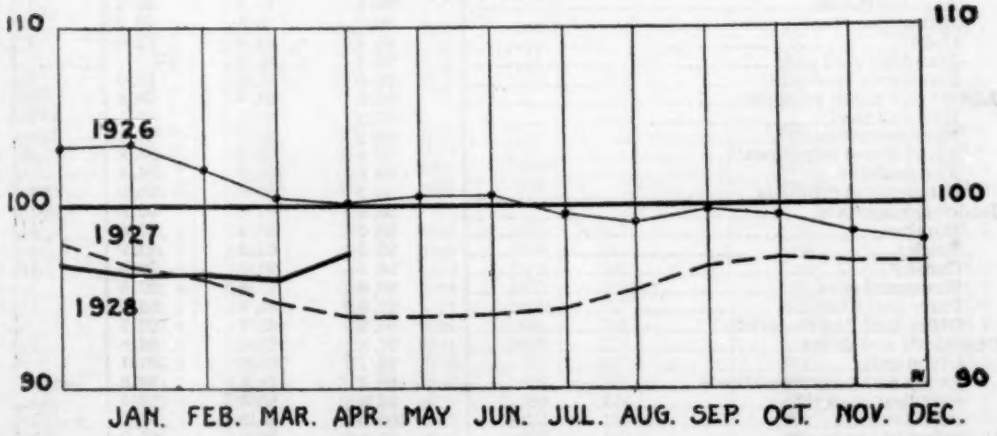
A RISE in the general level of wholesale prices from March to April is shown by information collected in representative markets by the Bureau of Labor Statistics of the United States Department of Labor. The bureau's weighted index number, computed on prices in the year 1926 as the base and including 550 commodities or price series, stands at 97.4 for April compared with 96 for March, an increase of nearly 1½ per cent. Compared with April, 1927, with an index number of 93.7, an increase of almost 4 per cent is shown.

Farm products as a group advanced nearly 4 per cent above the March level, due mainly to price increases for grains, hogs, lambs, poultry, and cotton. Potatoes, on the other hand, were cheaper than in March.

Foods and building materials increased over 1½ per cent while hides and leather products increased over 2 per cent. A negligible

TREND OF WHOLESALE PRICES

[1926=100]



increase was recorded for chemicals and drugs and a minor decrease for housefurnishing goods. No change in the general price level is shown for textile products, fuel and lighting materials, and metals and metal products. A decrease of over 2 per cent took place in the group of miscellaneous commodities, due largely to price decreases of crude rubber.

Of the 550 commodities or price series for which comparable information for March and April was collected, increases were shown in 141 instances and decreases in 116 instances. In 293 instances no change in price was reported.

Comparing prices in April with those of a year ago as measured by changes in the index numbers, it is seen that farm products and hides and leather products were considerably higher while foods and textile products were somewhat higher. Minor increases are shown for metals and metal products and for housefurnishing goods. Fuel and lighting materials were nearly 5 per cent cheaper than in April, 1927. Small decreases are shown for building materials and chemicals and drugs, with a larger decrease for the group of miscellaneous commodities.

INDEX NUMBERS OF WHOLESALE PRICES BY GROUPS AND SUBGROUPS OF COMMODITIES

[1926=100]

Groups and subgroups	April, 1927	1928		
		March	April	Purchasing power of the 1926 dollar in April (cents)
Farm products	94.3	103.5	107.6	92.9
Grains	93.2	113.6	121.6	82.2
Livestock and poultry	101.2	96.3	102.3	97.8
Other farm products	89.8	105.0	106.4	94.0
Foods	94.6	98.0	99.5	100.5
Butter, cheese, and milk	105.2	104.2	101.0	99.0
Meats	90.9	94.7	99.2	100.8
Other foods	93.0	97.7	99.1	100.9
Hides and leather products	101.7	124.0	126.7	78.9
Hides and skins	108.2	157.3	167.3	59.8
Leather	100.2	129.3	129.8	77.0
Boots and shoes	99.8	109.5	110.4	90.6
Other leather products	101.2	108.4	108.4	92.3
Textile products	94.2	96.5	96.5	103.6
Cotton goods	92.5	100.9	100.7	99.3
Silk and rayon	91.8	84.7	85.5	117.0
Woolen and worsted goods	98.7	100.6	100.5	99.5
Other textile products	94.5	86.6	86.2	116.0
Fuel and lighting	84.9	80.8	80.8	123.8
Anthracite coal	93.8	94.8	90.2	110.9
Bituminous coal	99.9	93.8	92.2	108.5
Coke	95.4	84.4	82.8	120.8
Manufactured gas	98.1	95.8	[1]	
Petroleum products	70.0	66.6	69.0	144.9
Metals and metal products	97.8	98.4	98.4	101.6
Iron and steel	97.2	95.2	95.1	105.2
Nonferrous metals	93.2	90.4	91.3	109.5
Agricultural implements	99.4	98.8	98.8	101.2
Automobiles	99.8	104.3	104.3	95.9
Other metal products	99.5	97.9	96.9	103.2
Building materials	95.0	91.0	92.5	108.1
Lumber	95.0	88.9	87.8	113.9
Brick	93.5	92.3	92.9	107.6
Cement	96.5	96.5	96.5	103.6
Structural steel	97.0	97.0	97.0	103.1
Paint materials	91.0	85.5	85.0	117.6
Other building materials	95.9	92.7	100.2	99.8
Chemicals and drugs	97.8	95.6	95.8	104.4
Chemicals	99.1	101.0	101.1	98.9
Drugs and pharmaceuticals	88.2	71.1	70.6	141.6
Fertilizer materials	99.3	96.5	97.4	102.7
Fertilizers	100.0	96.8	97.0	103.1
Housefurnishing goods	97.8	98.3	97.9	102.1
Furniture	97.8	97.9	97.8	102.2
Furnishings	98.8	98.6	97.9	102.1
Miscellaneous	91.3	86.8	84.9	117.8
Cattle feed	113.2	154.4	153.3	65.2
Paper and pulp	93.4	90.5	90.2	110.9
Rubber	83.8	55.0	41.5	241.0
Automobile tires	78.7	69.8	69.8	143.3
Other miscellaneous	100.2	98.3	98.4	101.6
Raw materials	92.7	97.9	100.1	99.9
Semimanufactured articles	95.9	97.8	97.9	102.1
Finished products	94.1	94.8	95.9	104.3
Nonagricultural commodities	93.6	94.0	94.7	105.6
All commodities	93.7	96.0	97.4	102.7

[1] Data not yet available.

Wholesale Prices in the United States and in Foreign Countries, 1923 to March, 1928

IN THE following table the more important index numbers of wholesale prices in foreign countries and those of the United States Bureau of Labor Statistics have been brought together in order that the trend of prices in the several countries may be compared. The base periods here shown are those appearing in the sources from which the information has been drawn, in most cases being the year 1913. Only general comparisons can be made

from these figures, since, in addition to differences in the base periods, there are important differences in the composition of the index numbers themselves.

INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES AND IN CERTAIN FOREIGN COUNTRIES

Country	United States	Canada	Belgium	Bulgaria	Czechoslovakia	Denmark	Finland	France	Germany	Italy
Computing agency	Bureau of Labor Statistics (revised)	Dominion Bureau of Statistics	Ministry of Industry and Labor	Director General of Statistics	Central Bureau of Statistics (revised index)	Statistical Department	Central Bureau of Statistics	General Statistical Bureau	Federal Statistical Bureau	Riccardo Bachi (revised)
Base period	1926	1913	April, 1914	1913	July, 1914	1913	1913	1913	1913	1913
Commodities	550	[1] 238	128	38	69	118	135	45	400	100
Year and month										
1923	100.6	153.0	497	2525	977	.....	.....	419	.....	[2] 503.9
1924	98.1	155.2	573	2823	997	.....	144	488	137.3	[2] 497.4
1925	103.5	160.3	558	.....	1008	210	147	550	141.8	[2] 612.0
1926	100.0	156.2	744	.....	955	163	142	703	134.4	[2] 618.2
1923										
January	102.2	151.4	434	2657	991	.....	.....	387	.....	516.1
April	104.0	156.9	480	2757	1012	.....	.....	415	.....	525.7
July	98.6	153.5	504	2498	949	.....	.....	407	.....	503.9
October	99.6	153.1	515	2263	960	.....	.....	421	.....	499.6
1924										
January	99.8	156.9	580	2711	974	.....	.....	494	.....	504.4
April	97.6	151.1	555	2798	1008	.....	.....	450	.....	510.3
July	95.9	153.9	566	2737	953	.....	.....	481	.....	497.4
October	98.6	157.0	555	2988	999	.....	.....	497	.....	522.0
1925										
January	103.5	165.5	559	3275	1045	243	.....	514	.....	568.2
February	104.5	164.7	551	3309	1048	240	.....	515	.....	571.1
March	104.8	161.6	546	3272	1034	236	.....	514	.....	571.2
April	102.4	156.5	538	3244	1020	230	.....	513	.....	571.1
May	102.1	158.8	537	3177	1006	227	.....	520	.....	571.2
June	103.4	158.6	552	3225	998	223	.....	543	.....	590.9
July	104.6	158.1	559	3041	1009	212	.....	557	.....	612.0
August	104.2	158.9	567	2870	993	197	.....	557	.....	630.6
September	103.7	156.2	577	2834	996	186	.....	556	.....	621.5
October	103.6	156.0	575	2823	989	179	.....	572	.....	617.1
November	104.5	161.2	569	2822	977	176	.....	605	.....	612.3
December	103.4	163.5	565	2913	977	176	.....	633	.....	613.8
1926										
January	103.6	163.8	560	2901	966	172	143	634	135.8	608.0
February	102.1	162.0	556	2899	950	165	142	636	134.3	603.5
March	100.4	160.0	583	2844	938	158	141	632	133.1	592.3
April	100.1	160.2	621	2774	923	157	141	650	132.7	590.0
May	100.5	156.8	692	2938	928	158	140	688	132.3	595.0
June	100.5	155.6	761	2842	926	157	141	738	131.9	604.9
July	99.5	155.9	876	2838	948	158	141	836	133.1	618.2
August	99.0	154.0	836	2759	963	162	143	769	134.0	632.5
September	99.7	152.5	859	2723	973	162	143	787	134.9	622.0
October	99.4	151.3	856	2716	972	178	143	751	136.2	596.7
November	98.4	151.4	865	2739	978	170	143	684	137.1	594.2
December	97.9	151.5	860	2718	978	158	144	627	137.1	573.6
1927										
January	96.6	150.9	856	2706	979	157	144	622	135.9	558.2
February	95.9	150.3	854	2688	975	156	144	632	135.6	555.8
March	94.5	149.1	858	2649	976	153	143	641	135.0	544.7
April	93.7	148.9	846	2592	979	152	143	636	134.8	521.3
May	93.7	152.1	848	2751	988	152	142	628	137.1	496.2
June	93.8	153.5	851	2823	990	152	144	622	137.9	473.4
July	94.1	152.4	845	2775	992	152	144	620	137.6	466.7
August	95.2	152.7	850	2745	983	153	147	618	137.9	465.4
September	96.5	151.3	837	2736	975	153	148	600	139.7	465.4
October	97.0	152.6	839	2747	966	154	148	588	139.8	467.5
November	96.7	152.2	838	.....	967	154	149	594	140.1	466.0
December	96.8	151.8	841	.....	975	154	148	604	139.6	462.9
1928										
January	96.3	151.3	851	2782	982	153	144	607	138.7	463.5
February	96.4	150.8	848	.....	985	152	143	609	137.9	461.3
March	96.0	152.8	848	.....	978	153	144	623	138.5	.....

[1] 236 commodities since April, 1924.

[2] July.

INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES AND IN CERTAIN FOREIGN COUNTRIES—Continued

Country	Netherlands	Norway	Spain	Sweden	Switzerland	United Kingdom	Australia	New Zealand	South Africa	Japan	China	India
Computing agency	Central Bureau of Statistics	Central Bureau of Statistics	Institute of Geography and Statistics	Chamber of Commerce	Dr. J. Lorenz	Board of Trade	Bureau of Census and Statistics	Census and Statistics Office (revised)	Office of Census and Statistics	Bank of Japan, Tokyo	Bureau of Markets, Treasury Department, Shanghai	Labor Office, Bombay
Base period	1913	1913	1913	1913	July, 1914	1913	July, 1914	1913	1913	1913	1913	July, 1914
Commodities	[1] 48	174	74	160	71	150	92	180	187	56	[2] 117	42
Year and month												
1923	151	232	172	163	179.9	158.9	170	158	127	199	156.4	181
1924	156	267	183	162	175.7	166.2	165	165	129	206	153.9	182
1925	155	253	188	161	162.9	159.1	162	161	128	202	159.4	168
1926	145	198	181	149	148.2	148.1	161	155	123	179	164.1	149
1923												
January	157	223	170	163	174.7	157.0	163	-------	131	184	152.7	181
April	156	229	174	168	185.9	162.0	167	-------	126	196	157.7	183
July	145	231	170	162	179.8	156.5	180	-------	124	192	155.4	178
October	148	235	171	161	181.1	158.1	171	-------	125	212	156.1	182
1924												
January	156	251	178	161	183.2	165.4	174	-------	131	211	155.8	183
April	154	263	184	161	181.4	164.7	166	-------	126	207	153.7	184
July	151	265	182	157	173.3	162.6	163	-------	125	195	151.5	183
October	161	273	186	167	169.0	170.0	163	-------	133	213	152.8	187
1925												
January	160	279	191	169	170.8	171.1	163	166	130	214	159.9	179
February	158	281	192	169	170.8	168.9	162	162	--------	210	159.2	179
March	155	279	193	168	169.9	166.3	160	162	--------	204	160.3	178
April	151	273	190	163	165.9	161.9	158	162	130	202	159.3	176
May	151	262	191	162	163.0	158.6	159	162	--------	199	157.8	174
June	153	260	187	161	161.9	157.2	162	162	--------	200	157.3	169
July	155	254	188	161	160.6	156.9	162	161	127	198	162.8	170
August	155	249	184	159	159.6	156.2	162	161	--------	200	160.3	169
September	155	237	185	157	159.4	155.1	162	160	--------	201	160.2	170
October	154	223	187	154	159.2	153.9	163	162	124	200	159.0	169
November	154	220	186	155	157.0	152.7	165	161	--------	198	158.4	168
December	155	220	187	156	156.7	152.1	160	160	--------	194	158.1	170
1926												
January	153	214	186	153	155.5	151.3	161	159	124	192	164.0	170
February	149	211	186	152	154.5	148.8	160	159	--------	188	163.0	171
March	145	205	183	149	150.8	144.4	163	157	--------	184	164.4	170
April	143	199	179	150	148.4	143.6	168	156	120	181	162.8	171
May	143	197	179	151	146.6	144.9	167	156	--------	177	159.7	170
June	144	194	177	150	145.1	146.4	163	155	--------	177	155.8	170
July	141	192	178	148	145.0	148.7	162	156	122	179	156.9	169
August	139	193	180	147	145.5	149.1	162	154	--------	177	160.5	168
September	140	193	178	146	146.0	150.9	158	153	--------	176	164.2	169
October	143	198	179	148	145.3	152.1	154	153	127	174	171.1	167
November	147	199	185	148	146.9	152.4	155	151	--------	171	174.4	168
December	147	184	186	150	148.3	146.1	155	153	--------	170	172.0	169
1927												
January	145	174	184	146	146.5	143.6	154	151	128	170	172.8	169
February	146	172	180	146	145.4	142.6	153	147	--------	171	172.0	167
March	144	167	179	145	146.7	140.6	150	147	--------	171	174.7	166
April	143	164	177	143	146.5	139.8	151	147	126	170	173.1	167
May	145	162	172	145	147.1	141.1	152	145	--------	171	171.3	166
June	149	166	171	146	147.2	141.8	155	146	--------	172	169.3	167
July	151	165	168	146	147.0	141.1	161	146	120	170	171.0	167
August	149	167	168	146	147.2	140.9	165	146	--------	167	170.8	168
September	150	167	169	148	147.9	142.1	170	146	--------	169	171.8	169
October	150	165	169	147	148.3	141.4	173	146	122	170	168.7	169
November	151	166	168	148	148.9	141.1	166	147	--------	168	165.8	166
December	151	166	169	148	150.1	140.4	162	148	--------	168	163.5	167
1928												
January	153	164	166	148	150.0	140.9	163	150	123	169	163.1	167
February	150	163	166	147	--------	140.3	160	147	--------	169	164.3	167
March	152	164	--------	149	--------	140.8	--------	141	--------	169	163.4	--------

[1] 52 commodities in 1920; 53 commodities from August, 1920, to December, 1921. [2] 147 items.

COST OF LIVING

Reasons for Present-Day Funeral Costs

IN VIEW of the widespread feeling that funeral costs are excessive and entail an unnecessary burden on the lower income groups, the Metropolitan Life Insurance Co. financed a survey of the burial industry which was carried out, in order to secure the utmost fairness, under the direction of an independent committee representative of various social and religious interests and the industry itself. The study covered the actual funeral expenditures among various income groups, including the funeral bills secured from 2,830 decedents' estates in four large cities; those for 8,828 holders of industrial policies from various sections of the United States; 3,123 claims for burial expenses filed with the United States Veterans' Bureau; and the bills paid by 319 widows applying for pensions to the New York Board of Child Welfare. It will be seen, therefore, that a fair picture was afforded of funeral bills among distinct economic groups and from different sections of the country.

In a summary[1] of the results of the survey it is shown that excessive funeral expenditures entail the most suffering in families of limited means who have minor children to support. The excessive expenditures may be accounted for partly by the desire on the part of the family for an elaborate funeral, either as a token of respect and affection for the departed or to comply with the demands made by the conventions or the social and religious traditions of the group, and partly by the disorganization and waste in the industry itself.

According to the Federal Census, the number of undertakers in the United States was 51 per cent greater in 1920 than in 1900, while the number of deaths had increased only 2.3 per cent; so that in a 20-year period the number of undertakers had increased roughly 25 times as fast as the volume of business. Although figures were not available, the rate of increase since 1920 in the number engaging in this business is apparently quite as great as in the preceding years. The result is that in the cities from 10 to 25 per cent of the undertakers have 50 per cent of the business while the other 50 per cent is spread among a large number of operators. As the establishments doing the largest volume of business had the lowest operating costs and prices to the public, it is evident that funeral prices can never be greatly lowered until the volume of business, which is fixed by the death rate, is concentrated in fewer hands.

[1] Advisory Committee on Burial Survey. The reasons for present-day funeral costs, by John C. Gebhart. New York [1928?].

The expenses of the industrial policyholders group may be considered a fair index of funeral expenses of wage-earning families in various parts of the country. While the figures given are averages and do not show the range of expenditures, these averages are sufficiently high to indicate the excessive amounts spent for this purpose. In general, charges were highest in the East, lowest in the South, with the Midwest and Central States (with one exception) falling between these extremes. Thus the average for New Jersey, the highest, was $484, and for North Carolina, the lowest, $194. In Ohio, the highest of the States in the Middle West, the average expenditure was $415. In general, expenditures were considerably higher in the cities than in the rural districts.

The records of 319 widows in New York now receiving pensions for the support of their children were studied. These were grouped by nationality, and it was found that the average funeral expenditure among the Irish was $452, which consumed 44 per cent of the net assets; among the Italians the average bill was $421, absorbing 50 per cent of the net assets; while among the Jews, owing to their simpler funeral customs, the average bill was only $247. For the industrial policyholders in New York City the average expenditure was $432.

From these figures it is apparent that reforms within the industry are needed, as well as a different attitude among the people at large toward the ostentation involved in needlessly high-priced funerals.

Working-Class Budgets in Moscow, Russia (a Correction)

IN THE Labor Review for December, 1927 (p. 212), an article on the "Family budget of a skilled worker in Moscow, Russia," was reprinted from Industrial and Labor Information (Geneva) for October 24, 1927. The April 16 issue of the latter publication contains the following correction received by the International Labor Office from the Commissariat of Labor of the Union of Soviet Socialist Republics:

> The inquiry referred to all classes of workers, skilled and unskilled (not to skilled workers only as stated in our previous article).
>
> The inquiry referred to 96 heads of families, 19 of whom were paid at the rates established under the sixth (average) wage scale, 39 under higher scales, and 38 under lower scales.
>
> The average daily wage of a head of a family employed in the textile industry varied between 2.25 and 4.51 roubles,[1] in the iron and steel trades between 1.88 and 9.46 roubles, and in the printing trades between 2.53 and 6.57 roubles.

[1] Exchange rate of rouble, first quarter of 1927=51.5 cents.

LABOR AWARDS AND DECISIONS

Awards and Decisions

Railway Clerks—Great Northern Railway

APRIL 4, 1928, an arbitration award in a dispute between the Brotherhood of Railway and Steamship Clerks, Freight Handlers, Express and Station Employees and the Great Northern Railway Co. was made by a board consisting of John A. Cochrane, representing the carrier, John H. Sylvester, representing the union, and John F. D. Meighen, appointed by the United States Board of Mediation. A majority of the board rendered the following decision:

This award shall be effective August 1, 1927, and the increases in rates of pay granted herein shall be added to the rates in effect July 31, 1927.

SECTION 1. Storekeepers, assistant storekeepers, chief clerks, foremen, subforemen, and other clerical supervisory forces—add 4 cents per hour, per position.

SEC. 2A. Clerks with experience of two or more years in railroad clerical work or clerical work of a similar nature in other industries, or where their cumulative experience in such clerical work is not less than two years—add 4 cents per hour, per position.

SEC. 2B. Clerks with an experience of one year and less than two years in railroad clerical work or clerical work of a similar nature in other industries, or where their cumulative experience in such clerical work is not less than one year—add 3 cents per hour, per position.

SEC. 3A. Clerks whose experience as above defined is less than one year and more than six months—add 2 cents per hour, per position.

SEC. 4. Train and engine crew callers, assistant station masters, train announcers, gatemen, and baggage and parcel room employees, other than clerks—add 4 cents per hour, per position.

(Sections 5 and 6—no increase.)

SEC. 7. Station, platform, warehouse, transfer, dock, pier, storeroom, and team-truck freight handlers or truckers, and others similarly employed—add 4 cents per hour, per position.

SEC. 8. The existing differential shall be maintained between the truckers' rate, as above established in section 7, and the classes named below under A and B.

A. Sealers, scalers, and fruit and perishable inspectors.

B. Storers or stevedores, callers, or loaders, locators, and coopers.

SEC. 9. All common laborers in and about stations, storehouses, and warehouses not otherwise provided for—add 4 cents per hour, per position.

(Sections 10 and 11—no increase.)

John A. Cochrane, the representative of the carrier, filed a dissenting opinion, reading as follows:

I must dissent from this award.

The increase in the wages authorized by this board will place the employees affected on a level higher than during the war-time peak, taking into consideration the fact that the cost of living has decreased since that time.

The economic condition of the Northwest, the large number of men unemployed, are such that I can not see any justification, based either upon sentiment or reason, and certainly not upon the evidence in this case, for any increase in the present wage rates.

This increase raises the wages of these employees to a level 35 per cent higher than is now paid for similar work in outside industry. There is no justification for such a differential existing between the wages paid railroad employees and those paid nonrailroad employees for similar work.

This wage increase places the wages of these employees upon a level in excess of the wages awarded by recent boards of arbitration to the employees of the New York Central, the Chicago & North Western, and the Illinois Central. The employees of these railroads live in cities where the cost of living is much greater than in Minneapolis and St. Paul.

State railroad commissions and farm and commercial organizations are demanding that freight rates be reduced. It must be self-evident that wages can not be constantly increased if freight rates are to be reduced and that such action as this board has taken will prevent any possibility of rate reductions or make it impossible to continue to give the Northwest the kind of service it requires. It must be apparent to anyone that freight rates can not be reduced if the cost of operating the railroad is to be constantly increased.

The wages paid by the Great Northern Railway Co. were just and reasonable.

Shop Crafts—Chesapeake & Ohio Railway

AN ARBITRATION award was made April 14, 1928, in a dispute between the Chesapeake and Ohio System Federation No. 41, railway employees department, American Federation of Labor, and the Chesapeake & Ohio Railway Co., by a board consisting of A. O. Wharton and F. H. Knight, appointed by the employees, J. B. Parrish and C. B. Hitch, appointed by the carrier, and Thomas Walker Page and Wm. Rogers Clay, appointed by the United States Board of Mediation. From the majority opinion are taken the following paragraphs:

The request in brief is for an upward adjustment of $1.50 per basic day for all journeymen mechanics, their apprentices and helpers, except freight car mechanics, for whom an adjustment of $1.66 per basic day is requested, and for coach cleaners, for whom a basic daily wage of $4.70 is requested.

The employees have not seen fit to introduce evidence bearing on numerous factors usually considered material in fixing or determining wages. They have pitched their case on inequality of treatment. The inequality complained of shows itself in the form of a difference of wages. It is stated that basically the treatment accorded to transportation-service employees is fair and proper and may be taken as a guide in judging the treatment that should be accorded to shop-craft employees.

In our opinion other factors that influence wages ought to be given consideration along with inequalities of wages. It is admitted by both parties to this case that wages should not be equal for all kinds of work. It is just and reasonable, for example, that a difference should exist between the wages of a coach cleaner and the wages of a machinist, or between the wages of a brakeman and the wages of a conductor. The reason for a difference is this: That the factors which determine wages vary in strength from one kind of employment to another. Thus all employees must bear some responsibility, but some must bear more than others; in railway employments all may be said to incur some hazards, but some incur more than others; all are subject to some physical and mental strain, but some are subject to more strain than others; all require some strength, skill, and experience, but some require more than others.

Some of the factors that determine wages, such as those that have been mentioned, are natural, but there are others which are purely artificial. Taken together they are numerous, and it is the variable force that they exert which brings about different wages for different employments. Certain artificial factors sometimes operate in such a manner as to cause injustice and discrimination to certain classes of employees. Hence arise, at times, wage differentials that are unfair and unreasonable.

In order to determine whether any differential at all is just and reasonable between the wages paid in one employment and those paid in another and, if so, how great that differential should be, it is necessary to examine the factors in both employments. When, on examination, it is found that certain artificial and discriminatory factors exert an undue strength, it is possible to repress them and thus to alter or to eliminate the existing differential.

The presentation in behalf of the shop-craft employees, the testimony in the case, and the argument of counsel do not describe the grounds on which the particular wage structure that developed under Federal control was approved and accepted. As evidence that it was just and reasonable reliance is placed on the knowledge and character of the men composing the agencies of government by whom the structure was framed. The factors that caused such differentials as were then permitted, the factors by repression of which other differentials were eliminated, the weight attached to the several factors as they combined under the quite unusual conditions at that time prevailing; in short, all evidence that the wage structure was intelligent, justifiable, and well balanced has been omitted from the proceedings in this case beyond the evidence that an effort was made by certain agencies to render the structure what at that time it should have been.

Assume, however, that respect for the personnel of the Government agencies which created the wage structure under Federal control and confidence in their wisdom and character should lead us to accept as just and reasonable for that time the relationships fixed by them. Does it necessarily follow that those relationships should be permanently maintained? We do not think so.

The factors that determine wages vary not only from one employment to another, they vary also within each employment from one period to another. Changes that differ widely among different employments both in frequency and extent take place in methods, processes, equipment, and organization. It follows that alterations occur in the hazard, the strain, the responsibility, the requisite skill of employees, in the productivity of their labor, and in other factors that determine wages.

It is possible that the alteration in all wage factors has, in fact, been so nearly the same for the shop-craft employees and for the classes with which they are here compared that a wage relationship which was just under Federal control would be just at the present time.

Much evidence has been brought to show that the difference between the wages of shop-craft employees and the wages of train and engine service employees is greater now than it was under Federal control, and likewise to show by how much the difference has increased.

The board of arbitration is asked to decide that because the wage relationship is different, it is therefore unjust. But the board can not pronounce the existing wage relationship unjust and unreasonable solely for the reason that it differs from the relationship which was established under Federal control nearly a decade ago. We can not accept the theory that wages in different employments should be made to rise or fall by equal amounts regardless of diverging changes that may take place in the wage factors that deserve to be considered.

We are constrained to conclude that in the light of such evidence as has been presented in the proceeding before this board of arbitration the request made by the shop-craft employees must be denied.

The request of the shop-craft employees for adjustment of existing wage rates is denied, and it is ordered that existing wage rates shall remain unchanged.

The representatives appointed by the employees filed a dissenting opinion containing the following statements:

The shop-craft employees took the position in this case that the railroad had produced no evidence that the Government-established wage structure, which was in effect for many years, was unfairly established, or contained unfair wage differentials, or that conditions had changed since that time so as to warrant a change in the wage differentials. Therefore they assumed that the board would feel obliged by the conceded facts, which proved unequal treatment of the shop-craft employees, in comparison with comparable employees, to increase their rates of pay. Instead the board has apparently announced as a principle of arbitration that the employees not only must prove affirmatively that they have suffered from unequal treatment, but must prove negatively that unequal

treatment has not been justified. We submit that such a principle would impose an unnecessary and excessive burden of proof upon the employees, and ought not to be established. The railroad is thus relieved of any obligation either to justify unequal treatment or in default to submit to an adjustment of wage rates, so that the shop-craft employees may no longer receive $1.50 per day less than other employees who only a few years ago received comparable wages.

We regard it as a most unhappy conclusion that this arbitration should be decided, not upon the merits of the employees' contentions, but upon a technical ruling that a prima facie showing of injustice, unanswered, does not warrant the board in doing justice. If such was the opinion of the board we believe it should have been made evident before the conclusion of the hearing. The employees repeatedly invited questions and offered to furnish any additional evidence desired on any point. They had every reason to believe that their limitation of evidence, in order to lighten the burden of the board, met the full approval of the board, since that was frequently indicated during the hearing. They have every reason to feel deeply wronged that disapproval should be first manifested in the decision rendered. An arbitration is not entered into as a technical contest, but as an informal effort to ascertain and to promote justice.

IMMIGRATION AND EMIGRATION

Statistics of Immigration for March, 1928

By J. J. Kunna, Chief Statistician United States Bureau of Immigration

IN MARCH, 1928, 40,618 aliens were admitted to the United States, comprising 26,270 immigrants and 14,348 nonimmigrants. The exodus of aliens this month totaled 17,173, of whom over 71 per cent (12,242) were nonemigrants going abroad for a short stay or leaving after a visit in this country. The remaining 4,931 were emigrants departing for permanent residence in some foreign country. During the same month 34,217 American citizens returned to the United States and 29,422 left for foreign shores.

Of the 40,618 aliens entering the country during March, 28,629 came in at the seaports and 24,422, or 85.3 per cent, of these landed at New York. Aliens coming from Canada and Mexico via the land-border ports numbered 5,685 and 6,304, respectively. Europeans comprised over 90 per cent of the New York arrivals, 22,147 aliens coming that way during March being natives of Europe, while 1,937 were born in Canada and other American countries, 231 in Asia, 50 in Africa, and 57 in Australia and the Pacific Islands. Of the alien arrivals during the month at our principal seaport, 12,203 were admitted as quota immigrants, 5,616 as returning residents, and 2,420 as visitors for business or pleasure; 1,545 were passing through the United States on their way elsewhere. Other admissions at New York this month included 1,765 wives and children of American citizens, 364 natives of nonquota countries who were admitted as such under the immigration act of 1924, and 509 students, ministers, professors, etc.

About three-fifths of the 5,685 aliens admitted to the United States during March, 1928, at points along the northern land border were Canadian born, 3,359 being natives of Canada, and the bulk (3,061) of these came in under section 4–c of the act of 1924 as natives of Canada. The others, although born in that country, were admitted principally as visitors and returning residents under the act. The Canadian border arrivals in March also included 2,213 aliens born in Europe, principally Great Britain and Ireland, and of this number 1,571 were admitted as quota immigrants under the act.

Of the 6,304 aliens admitted during March, 1928, by way of the southern land border, 6,060, or 96 per cent, were born in Mexico, and 5,831 of these came in under section 4–c of the act as natives of Mexico.

Of the 26,270 immigrant aliens admitted at all ports during the month of March, 4,471 came from Germany, 2,050 from the Irish Free

State, 1,581 from Italy, and 1,508 from Great Britain, these four countries contributing over 60 per cent of the overseas immigration this month. During the same period other European countries supplied 4,949 immigrants, while 194 came from the Asiatic countries, and 98 from Africa, Australia, and the Pacific Islands. The Western Hemisphere contributed 11,419 of the March immigrants, 4,724 coming from Canada, and 5,955 from Mexico, the other 740 immigrants coming from the West Indies and Central and South America.

Out of every 100 immigrants admitted to the United States during March, 1928, European countries contributed 55; 17 coming from Germany, 8 from the Irish Free State, 6 from Italy, 5 from Great Britain, and 19 from other countries of Europe. About 18 out of every 100 came from Canada, 23 from Mexico, and 4 from all of the other countries. In 1914, the last of the six fiscal years during which the annual influx of aliens to the United States passed the million mark, Italy and former Austria-Hungary each sent 23 out of every 100 immigrants then admitted; the former Russian Empire contributed 21, Great Britain and Ireland 6, and other European countries 14. In the same pre-war year only 7 immigrants out of every 100 came from Canada, 1 from Mexico, and 5 from other places in America, Asia, Africa, Australia, and the Pacific Islands.

The number of aliens debarred during March, 1928, from entering the United States numbered 1,385 for the land-border ports and 184 for the seaports. Failure to present proper immigration visa was the main cause for rejection, 1,491 aliens having been refused admission for this reason.

During the same month 950 undesirable aliens found to be unlawfully in the United States were deported to the country whence they came. The total deportations for the nine months July 1, 1927, to March 31, 1928, was 8,599. Over three-fifths of this number entered the country over the northern or southern land boundaries, 2,960 from Canada and 2,588 from Mexico; while 2,143 aliens landed at Atlantic seaports, 445 at Gulf of Mexico ports, 447 at Pacific ports, and 16 at ports in the outlying possessions of Alaska, Hawaii, and Porto Rico. These deportees were sent to nearly every part of the world, 3,709, or 43.1 per cent, going to Europe; 2,169, or 25.2 per cent, to Mexico; 1,804, or 21 per cent, to Canada; 421, or 4.9 per cent, to Asia; and 496, or 5.8 per cent, to the other countries.

The principal causes for deportation during the said nine months were: Entering without proper immigration visa, 3,921; criminal and immoral classes, 1,425; and mentally or physically defective, 882. Among the criminals deported, 539 had been sentenced to imprisonment for a year or more. Of the mental and physical defectives, 721 were found to be public charges in hospitals and other institutions from causes existing prior to entry, 477 being insane, 208 had other mental defects, and 36 were physically disabled.

INWARD AND OUTWARD PASSENGER MOVEMENT FROM JULY 1, 1927, TO MARCH 31, 1928

Period	Inward					Aliens debarred from entering [1]	Outward					Aliens deported after landing [2]
	Aliens admitted			United States citizens arrived	Total		Aliens deported			United States citizens departed	Total	
	Immigrant	Nonimmigrant	Total				Emigrant [2]	Nonemigrant [2]	Total [2]			
1927												
July	23,420	15,973	39,393	29,935	69,328	2,002	9,230	18,509	27,739	65,686	93,425	700
August	28,418	19,011	47,429	57,701	105,130	1,574	6,322	17,014	23,336	43,039	66,375	1,346
September	31,000	25,619	56,619	75,557	132,176	1,600	7,625	16,885	24,510	39,748	64,258	901
October	31,719	21,578	53,297	50,254	103,551	1,567	6,402	16,424	22,826	24,396	47,222	932
November	27,758	13,841	41,599	24,325	65,924	1,723	5,871	16,886	22,757	22,612	45,369	1,030
December	22,350	10,452	32,802	18,922	51,724	1,679	9,085	21,418	30,503	25,209	55,712	999
1928												
January	18,146	8,579	26,725	19,909	46,634	1,348	5,323	15,632	20,955	27,126	48,081	808
February	20,888	10,393	31,281	31,941	63,222	1,390	4,708	10,070	14,778	34,810	49,588	933
March	26,270	14,348	40,618	34,217	74,835	1,569	4,931	12,242	17,173	29,422	46,595	950
Total	229,969	139,794	369,763	342,761	712,524	14,452	59,497	145,080	204,577	312,048	516,625	8,599

[1] Not included among inward numbers, as they were not permitted to enter the United States.
[2] Deported aliens are included among the emigrant or the nonemigrant aliens.

PUBLICATIONS RELATING TO LABOR

Official—United States

ILLINOIS.—Board for Vocational Education. *Bulletin No. 44: Statement of plans and policies, five-year period, 1927–1932. Springfield, 1928. 81 pp.*

MARYLAND.—Commissioner of Labor and Statistics. *Thirty-sixth annual report, 1927. Baltimore, 1928. 86 pp.*

Data on working hours of women in 1927, taken from this report, are published on page 46 of this issue.

MASSACHUSETTS.—Department of Labor and Industries. Board of Conciliation and Arbitration. *Report, together with the decisions rendered by the Board, for the year ending November 30, 1927. Boston, 1928. 59 pp.*

NEW YORK.—Department of Labor. *Proceedings of the eleventh annual New York State Industrial Safety Congress, Buffalo, November 29–December 1, 1927. Albany, 1928. 253 pp.*

—— —— *Special bulletin No. 152: Causes of compensated accidents, two years ended June 30, 1926. Prepared by Bureau of Statistics and Information. Albany, 1927. 145 pp.*

Reviewed on page 73 of this issue.

PENNSYLVANIA.—Department of Labor and Industry. *Special bulletin No. 21: Fourteen and fifteen year old children in industry. Harrisburg, 1927. 28 pp.*

Reviewed on page 48 of this issue.

UNITED STATES.—Department of Commerce. Bureau of Foreign and Domestic Commerce. *Trade information bulletin No. 540: German metal-working machinery industry and trade, by Theodore Pilger. Washington, 1928. 76 pp.*

Information on wages and hours of labor, extracted from this report, is given on page 126 of this issue.

—— —— —— *Trade promotion series No. 62: The Irish Free State—An economic survey, by Hugh D. Butler and others. Washington, 1928. 86 pp.; chart, maps, illus.*

Includes brief statements relating to trade-unions, strikes and lockouts, unemployment, cost of living, and housing.

—— —— Bureau of Mines. *Bibliography of fire hazards and prevention, and safety in the petroleum industry, compiled by H. Britton and G. B. Shea. Washington, 1928. 10 pp., mimeographed.*

—— Interstate Commerce Commission. Bureau of Statistics. *Fortieth annual report on the statistics of railways in the United States for the year ended December 31, 1926, including also selected data relating to other common carriers subject to the interstate commerce act for the year 1926. Washington, 1928. cxxviii, 274 pp.*

Includes a table showing the average number of employees on Class I steam railroads of the United States, with working time and total and average compensation of employees, for the calendar year 1926.

Official—Foreign Countries

AUSTRALIA.—Bureau of Census and Statistics. *Labor report, 1926, No. 17. Melbourne, 1927. 174 pp.; charts.*

Contains statistical data for the whole Commonwealth, including rates of wages and hours of labor, wholesale and retail prices, unemployment, industrial disputes, immigration, accidents, labor organizations, and employers' associations.

—— —— *Official yearbook of the Commonwealth of Australia, No. 20, 1927. Melbourne [1927?]. xxxi, 1037 pp.; map, charts.*

Includes data on wages, hours of labor, prices, employment, industrial disputes, trade-unions, and employers' associations, for various periods.

—— (NEW SOUTH WALES).—Director General of Public Health. *Report for the year ended December 31, 1926. Section I.–C, Industrial hygiene, pp. 49–76. Sydney, 1928. Charts.*

This report contains an account of a study of theater ventilation and of an investigation of occupational dermatitis in a rubber factory in Sydney.

AUSTRIA.—Kammer für Arbeiter und Angestellte für Wien. *Löhne und Lebenshaltung der Wiener Arbeiterschaft im Jahre 1925. Vienna, 1928. 225 pp.*

Wages and cost of living in the city of Vienna in 1925.

BELGIUM.—Ministère de l'Industrie, du Travail et de la Prévoyance Sociale. Inspection du Travail. *Rapports annuels de l'inspection du travail, 1926. Brussels, 1927. 264 pp., illus.*

This report of the labor inspection service of Belgium for the year 1926 covers 39,255 visits of inspection to establishments employing approximately 587,000 workers. In addition to supervision of safety and sanitation in workshops and the enforcement of labor laws, the inspection service is also authorized to intervene in case of strikes and the different arbitration boards function under this branch of the Government service.

CANADA.—Department of Trade and Commerce. Bureau of Statistics. Forest Products Branch. *Census of industry: The pulp and paper industry, 1926. Ottawa, 1928. 99 pp.; charts. (Printed in English and French.)*

Summary tables include data on production and average earnings of employees in 1926 in the industry covered.

—— National Research Council. Honorary Advisory Council for Scientific and Industrial Research. *Report of the president and financial statement, 1926–27. Ottawa, 1928. 140 pp., illus.*

—— (QUEBEC).—Department of the Secretary. Bureau of Statistics. *Statistical yearbook of Quebec, 1927. Quebec, 1927. 482 pp.; charts.*

One section of this volume is devoted to the subject of organized labor, and contains data on labor unions; coalitions, strikes, and unemployment; labor inspection; employment bureaus; and labor accidents. Another section gives detailed statistics on people's banks.

FRANCE.—Commission Supérieure de la Caisse Nationale des Retraites pour la Vieillesse. *Rapport les opérations et la situation de cette caisse, année 1926. Paris, 1927. 104 pp.*

The annual report for the year 1926 of the French National Old-Age Retirement Fund.

GREAT BRITAIN.—Industrial Fatigue Research Board. *Report No. 45: Two contributions to the experimental study of the menstrual cycle. I.—Its influence in mental and muscular efficiency, by S. C. M. Sowton and C. S. Myers. II.—Its relation to general functional activity, by E. M. Bedale. London, 1928. 68 pp.; charts.*

GREAT BRITAIN.—Industrial Fatigue Research Board. *Report No. 47: Two studies on hours of work. I.—Five-hour spells for women, with reference to rest pauses. II.—The two-shift system in certain factories. London, 1928. 30 pp.*

A summary of the findings concerning the two-shift system was given in the Labor Review for May (p. 124). The first study was undertaken in view of the increasing use of a workday involving spells of 4¾ or 5 hours. The proposition has been made that all women and young persons should be given a break of 15 minutes' duration during the spell. The conclusions drawn from the study are that such a break is advantageous to the worker, that in many cases efficiency may be so increased by it that output will not be reduced and may even be increased, and that the objections urged against it by some employers may be obviated by efficient management.

—— —— *Report No. 50: The physiological cost of the muscular movements involved in barrow work, by G. P. Crowden. London, 1928. 19 pp.; diagrams, illus.*

This study shows the expenditure of energy involved in transporting heavy loads in wheelbarrows and suggests methods by which such work may be performed most efficiently.

—— Medical Research Council. *Report for the year 1926–27. London, 1928. 152 pp. (Cmd. 3013.)*

The report contains an account of various studies carried out by different divisions of the Medical Research Council, including the miscellaneous researches into industrial diseases and the studies by the Industrial Fatigue Research Board.

—— Ministry of Labor. London Advisory Council for Juvenile Employment. *Fourth annual report, 1927. London, 1928. 17 pp.*

The council reports that there was little or no difficulty in finding employment for juveniles in London during the year. In fact, there was a constant and insistent demand for boys and girls fresh from school. During the year 70,400 boys and girls were placed by the employment exchanges. At the middle of July, 1927, the number registered as seeking employment was 3,000, the smallest number registered at that date since 1921, with the sole exception of 1925 when the lists showed the same figure—3,000.

—— Registry of Friendly Societies. *Return showing details of membership, income, expenditure, and funds of registered trade-unions with 10,000 or more members in the years 1925 and 1926. London, 1928. 9 pp. (Cmd. 3056.)*

INDIA (BOMBAY).—Labor Office. *Report on an enquiry into middle-class family budgets in Bombay City. Bombay, 1928. 33 pp.*

The study, begun in 1922 and completed in 1924, covered 2,000 middle-class families, but for various reasons a number of the schedules were rejected, so that the data published relate to 1,325 families with monthly incomes ranging from Rs.75 to Rs.225. Concerning these the report gives statistics as to (1) the size and earnings of the family; (2) the cost and consumption of food, fuel and lighting, furniture and household effects; and (3) house rents and housing conditions.

INTERNATIONAL LABOR OFFICE.—*Studies and reports, series M (social insurance), No. 6: Compulsory sickness insurance. 794 pp. No. 7: Voluntary sickness insurance. xlviii, 470 pp. Geneva, 1927.*

A summary of these two reports is given on page 77 of this issue.

NETHERLANDS (AMSTERDAM).—Commissie van onderzoek naar den omvang en de feitelijke beteekenis der werkloosheid te Amsterdam. *Rapport. Amsterdam, 1927. 109 pp.*

A review of this report of the commission of inquiry into the extent and practical significance of unemployment in Amsterdam is given on page 88 of this issue.

UNION OF SOUTH AFRICA.—Office of Census and Statistics. *Fourth census of the population of South Africa, enumerated May 4, 1926. Part IX, Dwellings. Pretoria, 1928. xv, 49 pp.*

Statistics on housing, including number, size, rent, etc., of dwellings.

Unofficial

ADVISORY COMMITTEE ON BURIAL SURVEY. *The reasons for present-day funeral costs, by John C. Gebhart.* [*New York, Metropolitan Life Insurance Co. Press, 1928?*]

Reviewed on page 173 of this issue.

ALLEN, FREDERICK J., Editor. *Practice in vocational guidance. New York, McGraw-Hill Book Co. (Inc.), 1927. 306 pp.*

A collection of articles, the majority of which have already been published in the Vocational Guidance Magazine. The contributions are grouped under the five following heads: "Organizing for vocational guidance," "Classes in occupational information," "Research in occupational information," "Tests and measurements in vocational and educational guidance," and "Placement and follow-up."

AMERICAN LABOR YEAR BOOK, 1928. *New York, Rand School of Social Science, 7 East Fifteenth Street, 1928. 265 pp.*

Continuing the same general policy of previous issues of this yearbook, the 1928 edition contains brief summaries of recent developments in the various fields of labor and industrial activity. In addition it deals especially with the political issues facing American labor in the present presidential election year.

AMERICAN MANAGEMENT ASSOCIATION. *Annual convention series No. 75: Pensions—A problem of management, by Edward S. Cowdrick. New York, 20 Vesey Street, 1928. 38 pp.*

ASSOCIATION POUR LA PROTECTION LÉGALE DES TRAVAILLEURS. *L'utilisation des loisirs des travailleurs. Paris, Félix Alcan, 1925. 35 pp.*

A discussion of workers' leisure in relation to housing and the provision of gardens.

BUCK, J. LOSSING. *Farm ownership and tenancy in China. Shanghai, National Christian Council, Committee on Christianizing the Economic Order* [*n. d.*]. *31 pp.*

An attempt to summarize as briefly as possible the existing information on the subject. It is estimated that probably at least 50 per cent of the farmers of China own the farms they operate.

CARVER, THOMAS NIXON, and LESTER, HUGH W. *This economic world and how it may be improved. Chicago, A. W. Shaw Co., 1928. 432 pp.; charts.*

CLEVELAND CONFERENCE FOR EDUCATIONAL COOPERATION. Committee on Adult Education. *Report, 1927. Cleveland, 1928. 70 pp.; charts.*

Combines the results of investigations and studies of adult education carried on by several committees for over two years, and indicates that the next step to be taken is the development and careful coordination of a program which will provide a proper place for every possible form of adult education.

COLE, G. H. D. *The economic system—An elementary outline. London, Longmans, Green & Co. (Ltd.)., 1927. 90 pp.*

Prepared for the British Workers' Educational Association and designed to give an analysis, not of economic doctrines in general, but of those particular subjects which lie most on the surface and nearest to ordinary business practice.

COMITÉ CENTRAL DES HOUILLÈRES DE FRANCE. *Rapport présenté a l'assemblée générale ordinaire du 23 Mars 1928. Paris, 1928. 22 pp.; chart.*

Data on wages and output per worker in coal mines of France, taken from this report, are given on page 36 of this issue.

DUNN, ROBERT W. *Soviet trade-unions. New York, Vanguard Press, 1928. 238 pp.*

Describes the construction and the more positive activities of the Russian unions.

EPSTEIN, RALPH C. *The automobile industry, its economic and commercial development. Chicago, A. W. Shaw Co., 1928. 412 pp.; charts, illustrations.*

HARDMAN, J. B. S., Editor. *American labor dynamics, in the light of postwar developments—An inquiry by 32 labor men, teachers, editors, and technicians. New York, Harcourt, Brace & Co., 1928. 432 pp.*

HODÉE, ADOLPHE. *Les jardiniers et les jardins. Paris, Gaston Doin et Cie, 1927. 460 pp.*

A study of horticulture in France, with special reference to working conditions, trade organizations, and employment methods.

INTERNATIONAL ASSOCIATION FOR SOCIAL PROGRESS (British Section). *Report on "family endowment." London, Cooperative Printing Society (Ltd.), 1927. 13 pp.*

Gives the present status of family endowment in Great Britain and summarizes the arguments for and against the establishment of such a system.

INTERNATIONAL CLOTHING WORKERS' FEDERATION. *Report of the International Clothing Workers' Congress, held from August 8 to 10, 1927, in Paris. Amsterdam, Reguliersgracht 80 [1928?]. 113 pp.*

JANVIER, J. M. *Organisation professionnelle et repos hebdomadaire (loi du 29 Décembre 1923). Paris, Les Presses Universitaires de France [1927?]. 157 pp.*

The author discusses the French legislation relative to the weekly rest day, with particular reference to its effect on other social questions.

LAPP, JOHN A. *Justice first. New York, Century Co., 1928. 185 pp.*

This volume consists of a collection of addresses on various social questions such as old-age security, health insurance, rehabilitation of the handicapped, education, and medical care of the injured worker.

LEES-SMITH, H. B., Editor. *Encyclopedia of the labor movement. London, Caxton Publishing Co. (Ltd.) [1928?]. 3 vols.*

The purpose of the work is to present a survey of the whole range of labor interests in industry and society. Each topic is treated by a specialist in that subject, and the list of authors contains a number of internationally known names. As a whole, it is an exceedingly convenient and usable book of reference on all labor matters, especially with regard to English questions and developments.

LEWIS, EDWARD R. *America—Nation or confusion: A study of our immigration problems. New York, Harper Bros., 1928. 408 pp.*

The author emphasizes the importance and desirability of putting into effect the national origins provision in connection with legislation regulating immigration into the United States, the promulgation of which was postponed by Congress until July 1, 1928. The attempt is made to prove that the admission of large groups of aliens of diverse races may destroy the political and social unity of our country.

LLOYD, C. M. *Trade-unionism. London, A. & C. Black (Ltd.), 1928. 194 pp.; charts. 3d ed.*

Traces the history of British trade-unionism from its beginnings to the present day. The industrial disturbances of 1926 and the trade disputes and trade-unions act of 1927 are dealt with as fully as space would allow, and the text of the act is included. A brief bibliography is given of recent works on trade-unionism and industrial problems.

MAZUR, PAUL M. *American prosperity, its causes and consequences. New York, Viking Press, 1928. 268 pp.*

METROPOLITAN LIFE INSURANCE CO. *Papers presented at the eighth international congress of actuaries, London, England, June 27–30, 1927.* [*New York, 1927?*] *43 pp.*

The three papers included in this pamphlet were presented by officers of the Metropolitan Life Insurance Co., and covered the following subjects: Welfare activities for policyholders of life insurance companies in the United States and Canada; industrial insurance in the United States and Canada; and social insurance in the United States and Canada.

NATIONAL CHILD-LABOR COMMITTEE. *Publication No. 344: Child-labor laws and child-labor facts—An analysis by States. New York, 215 Fourth Avenue, 1928.*

The analysis for each State, accompanied by a brief bibliography for that State, is printed on a separate sheet, and the complete set is fastened together in such a way that any particular State analysis may be detached and used separately. The study includes legislation up to April, 1928.

NATIONAL INDUSTRIAL CONFERENCE BOARD. *Eleventh annual report of the president [for the fiscal year ending April 30, 1927]. New York, 247 Park Avenue, 1927. 47 pp.*

The report includes an account of the organization and work of the National Industrial Conference Board, together with an address by the president of the board entitled "American industry at a turning point."

NATIONAL METAL TRADES ASSOCIATION. Committee on Industrial Relations. *Methods of wage payment. Chicago, 122 South Michigan Avenue, 1928. 57 pp.*

Reviewed on page 124 of this issue.

PHILIP, ANDRÉ. *Le problème ouvrier aux États-Unis. Paris, Félix Alcan, 1927. 559 pp.*

The labor problem in the United States is discussed in this work, first from the standpoint of employers' policies, including scientific management, personnel relations, and representation plans; and second, from the employees' standpoint, covering a study of the trade-union movement, its structure and methods, with special regard to the union organization in each of the important industries of the country.

PINI, AUGUSTE. *Le trade-unionisme et ses rapports avec le mouvement ouvrier anglais contemporain. Paris, E. de Boccard, 1927. 292 pp.*

A history of trade-unionism in England, with special reference to the political and economic activities of the unions since 1890 and to the development of different social theories among them during the past 30 years.

TRADES UNION CONGRESS (GREAT BRITAIN) AND OTHERS. *The mining situation—An immediate program. London, Labor Publications Department, 1928. 18 pp.*

Reviewing the Government statistics as to the situation in the coal-mining industry at the end of 1927, the authors offer suggestions for improving conditions.

WILE, FREDERIC WILLIAM, Editor. *A century of industrial progress. Published for the American Institute of the City of New York by Doubleday, Doran & Co. (Inc.), Garden City, N. Y., 1928. 581 pp.*

A symposium of articles on the development of American industry, commerce, science, and finance by leading authorities in the various fields.

WILLOUGHBY, W. F. *Principles of public administration, with special reference to the National and State Governments of the United States. Baltimore, Johns Hopkins Press, 1927. 720 pp.*

Prepared for the use of the student of political science and for officials handling matters of general legislation and administration, rather than for the technician. One of the four parts into which the book has been divided relates to personnel, and includes chapters on the Government service as a career, training of public employees, classification and standardization of positions and salaries, recruitment of personnel, promotion of personnel, demotion and dismissal of personnel, employees' organizations, and retirement systems.

WOOD, ARTHUR E. *Community problems. New York, Century Co., 1928. 589 pp.; diagrams.*

The various problems connected with the social development of communities form the subject of this volume. There is a discussion of the general problems of community life as well as of the specific problems connected with housing, public health, community recreation, and Americanization.

WORLD POPULATION CONFERENCE. *Proceedings, Geneva (Switzerland), August 29 to September 3, 1927. Edited by Mrs. Margaret Sanger. London, Edward Arnold & Co., 1927. 383 pp.; diagrams.*

One session was devoted to the subject of migration.

LIST OF BULLETINS OF THE BUREAU OF LABOR STATISTICS

The following is a list of all bulletins of the Bureau of Labor Statistics published since July, 1912, except that in the case of bulletins giving the results of periodic surveys of the bureau only the latest bulletin on any one subject is here listed.

A complete list of the reports and bulletins issued prior to July, 1912, as well as the bulletins published since that date, will be furnished on application. Bulletins marked thus (*) are out of print.

Conciliation and arbitration (including strikes and lockouts).

*No. 124. Conciliation and arbitration in the building trades of Greater New York. [1913.]
*No. 133. Report of the industrial council of the British Board of Trade on its inquiry into industrial agreements. [1913.]
No. 139. Michigan copper district strike. [1914.]
No. 144. Industrial court of the cloak, suit, and skirt industry of New York City. [1914.]
No. 145. Conciliation, arbitration, and sanitation in the dress and waist industry of New York City. [1914.]
*No. 191. Collective bargaining in the anthracite-coal industry. [1916.]
*No. 198. Collective agreements in the men's clothing industry. [1916.]
No. 233. Operation of the industrial disputes investigation act of Canada. [1918.]
No. 255. Joint industrial councils in Great Britain. [1919.]
No. 283. History of the Shipbuilding Labor Adjustment Board, 1917 to 1919.
No. 287. National War Labor Board: History of its formation, activities, etc. [1921.]
No. 303. Use of Federal power in settlement of railway labor disputes. [1922.]
No. 341. Trade agreement in the silk-ribbon industry of New York City. [1923.]
No. 402. Collective bargaining by actors. [1926.]
No. 448. Trade agreements, 1926.

Cooperation.

No. 313. Consumers' cooperative societies in the United States in 1920.
No. 314. Cooperative credit societies in America and in foreign countries. [1922.]
No. 437. Cooperative movement in the United States in 1925 (other than agricultural).

Employment and unemployment.

*No. 109. Statistics of unemployment and the work of employment offices in the United States. [1913.]
No. 172. Unemployment in New York City, N. Y. [1915.]
*No. 183. Regularity of employment in the women's ready-to-wear garment industries. [1915.]
*No. 195. Unemployment in the United States. [1916.]
No. 196. Proceedings of the Employment Managers' Conference held at Minneapolis, Minn., January 19 and 20, 1916.
*No. 202. Proceedings of the conference of Employment Managers' Association of Boston, Mass., held May 10, 1916.
No. 206. The British system of labor exchanges. [1916.]
No. 227. Proceedings of the Employment Managers' Conference, Philadelphia, Pa., April 2 and 3, 1917.
No. 235. Employment system of the Lake Carriers' Association. [1918.]
*No. 241. Public employment offices in the United States. [1918.]
No. 247. Proceedings of Employment Managers' Conference, Rochester, N. Y., May 9–11, 1918.
No. 310. Industrial unemployment: A statistical study of its extent and causes. [1922.]
No. 409. Unemployment in Columbus, Ohio, 1921 to 1925.

Foreign Labor Laws.

*No. 142. Administration of labor laws and factory inspection in certain European countries. [1914.]

Housing.

*No. 158. Government aid to home owning and housing of working people in foreign countries. [1914.]
No. 263. Housing by employers in the United States. [1920.]
No. 295. Building operations in representative cities in 1920.
No. 368. Building permits in the principal cities of the United States in [1921 to] 1923.
No. 424. Building permits in the principal cities of the United States in [1924 and] 1925.
No. 449. Building permits in the principal cities of the United States in [1925 and] 1926.

Industrial Accidents and Hygiene.

*No. 104. Lead poisoning in potteries, tile works, and porcelain enameled sanitary ware factories. [1912.]
No. 120. Hygiene of the painters' trade. [1913.]
*No. 127. Dangers to workers from dusts and fumes, and methods of protection. [1913.]
*No. 141. Lead poisoning in the smelting and refining of lead. [1914.]
*No. 157. Industrial accident statistics. [1915.]
*No. 165. Lead poisoning in the manufacture of storage batteries. [1914.]
*No. 179. Industrial poisons used in the rubber industry. [1915.]
No. 188. Report of British departmental committee on the danger in the use of lead in the painting of buildings. [1916.]
*No. 201. Report of committee on statistics and compensation insurance cost of the International Association of Industrial Accident Boards and Commissions. [1916.]
*No. 207. Causes of death, by occupation. [1917.]
*No. 209. Hygiene of the printing trades. [1917.]
*No. 219. Industrial poisons used or produced in the manufacture of explosives. [1917.]
No. 221. Hours, fatigue, and health in British munition factories. [1917.]
No. 230. Industrial efficiency and fatigue in British munition factories. [1917.]
*No. 231. Mortality from respiratory diseases in dusty trades (inorganic dusts). [1918.]
*No. 234. Safety movement in the iron and steel industry, 1907 to 1917.
No. 236. Effects of the air hammer on the hands of stonecutters. [1918.]
No. 249. Industrial health and efficiency. Final report of British Health of Munition Workers' Committee. [1919.]
*No. 251. Preventable death in the cotton-manufacturing industry. [1919.]
No. 256. Accidents and accident prevention in machine building. [1919.]
No. 267. Anthrax as an occupational disease. [1920.]
No. 276. Standardization of industrial accident statistics. [1920.]
No. 280. Industrial poisoning in making coal-tar dyes and dye intermediates. [1921.]
No. 291. Carbon-monoxide poisoning. [1921.]
No. 293. The problem of dust phthisis in the granite-stone industry. [1922.]
No. 298. Causes and prevention of accidents in the iron and steel industry, 1910–1919.
No. 306. Occupational hazards and diagnostic signs: A guide to impairments to be looked for in hazardous occupations. [1922.]
No. 339. Statistics of industrial accidents in the United States. [1923.]
No. 392. Survey of hygienic conditions in the printing trades. [1925.]
No. 405. Phosphorus necrosis in the manufacture of fireworks and in the preparation of phosphorus. [1926.]
No. 425. Record of industrial accidents in the United States to 1925.
No. 426. Deaths from lead poisoning. [1927.]
No. 427. Health survey of the printing trades, 1922 to 1925.
No. 428. Proceedings of the Industrial Accident Prevention Conference, held at Washington, D. C. July 14–16, 1926.
No. 460. A new test for industrial lead poisoning. [1928.] (In press.)

Industrial Relations and Labor Conditions.

No. 237. Industrial unrest in Great Britain. [1917.]
No. 340. Chinese migrations, with special reference to labor conditions. [1923.]
No. 349. Industrial relations in the West Coast lumber industry. [1923.]
No. 361. Labor relations in the Fairmont (W. Va.) bituminous-coal field. [1924.]
No. 380. Postwar labor conditions in Germany. [1925.]
No. 383. Works council movement in Germany. [1925.]
No. 384. Labor conditions in the shoe industry in Massachusetts, 1920–1924.
No. 399. Labor relations in the lace and lace-curtain industries in the United States. [1925.]

Labor Laws of the United States (including decisions of courts relating to labor).

No. 211. Labor laws and their administration in the Pacific States. [1917.]
No. 229. Wage-payment legislation in the United States. [1917.]
No. 285. Minimum-wage laws of the United States: Construction and operation. [1921.
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JAMES J. DAVIS, Secretary
BUREAU OF LABOR STATISTICS
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